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**NEWS SUMMARY**

**GENERAL**  
**Dan-Air aircraft in sea: 30 saved**  
Thirty of the 49 people aboard survived when a twin-engined Dan-Air aircraft on charter to Shell crashed into the sea on take-off from Sumburgh Airport, Shetland.  
Lifeboats, coastguard vessels and helicopters joined rescue efforts after the piston-engine Hawker-Siddeley 660-400 crashed into the sea and crashed into shallow water off Vike Voe.  
Rescuers desperately tried to attach lines to the aircraft's tail as it floated nose-down about 50 yards from the end of the runway.  
Some survivors managed to swim ashore and others were picked up. One local hospital treated 24 survivors, most suffering from the effects of cold and shocks. Divers scoured the crash scene for bodies.  
**Councils must cut £600m more**  
The Government told local authorities to cut planned current spending in 1980-81 by over £600m—making savings of 5 per cent. It represents a one per cent spending cut on top of the 3 per cent reduction councils have already been asked to make in the present year.  
Social Services Secretary Patrick Jenkin will today announce how he will deal with the South London health authority which has refused to cut spending by about £5m to keep within Government cash limits. **Back Page**  
**Thatcher talks**  
The Prime Minister began delicate informal talks in Lusaka with key African leaders before Friday's Commonwealth conference discussion of the Rhodesia issue. In Salisbury the Rev. Nehemiah Sithole announced that his ZANU party was ending its boycott of Parliament. **Back Page**  
**Parter plea**  
President Carter called for quick action from Congress to help the U.S. use more of its vast reserves of coal and to reduce oil imports. Coal output is to be increased by about 150m tons within 11 years, he said.  
**Crash ruling**  
A chain of "unfortunate events" led to the head-on collision of two trains near Leeds in 1977, killing both drivers, a Transport Department report said. The events followed the firing of an emergency generator to a signal box because of threatened industrial action by electricity workers.  
**Ulster killing**  
A plain clothes policeman, George Walsh, 50, was shot dead as he waited in an unmarked car outside a courthouse in Armagh, Northern Ireland.  
**DC-10 evidence**  
An aircraft mechanic told the Chicago inquiry into May's DC-10 crash that he saw no crack on the engine mounting of the American Airlines jet when the engine was replaced after maintenance last March.  
**Scientist wins**  
Atomic scientist Sir Rudolf Peierls was awarded substantial fees damages in the High Court over allegations in a book by Richard Deacon that he was suspected of being a Russian spy.  
**Briefly...**  
Detectives from four U.S. states questioned a man who claims to have killed 20 people since being freed from prison 13 months ago.  
August long-range weather forecast is for warm, dry periods with wet interludes and above-average temperatures. **Weather, Back Page**

**BUSINESS**  
**Equities up 3.2; Gold falls \$2**  
● **EQUITIES:** The FT 100 share index gained 3.2 to 280.1 in sluggish trading.  
● **GILTS:** eased in sympathy with sterling's weakness and the Government Securities Index finished 0.24 down at 224.4.  
● **GOLD:** closed \$24 an ounce down in London at \$238.7.



● **STERLING:** fell 6.55 cents against the dollar to \$2.2480 and its trade-weighted index dropped to 72.1 (73.5). DOLLAR's trade-weighted index rose to 84.6 from 84.3.  
● **WALL STREET:** before the close was up 6.23 at 244.97.  
● **HARLAND AND WOLFE:** the Belfast shipbuilders, has notified ship stewards of proposals for 630 redundancies in mid-autumn. **Back Page**  
● **DOCKERS:** at Aberdeen refused a union request to stop handling food containers in many North Sea oil rigs and platforms. **Back Page**  
● **LONDON'S** four main auction houses had record sales last season with combined net sales of £330.6m against £282.9m in 1977-78—a rise of 16.8 per cent. **Page 5**  
● **GENERAL MOTORS:** of the U.S. has injected a further \$10m into its UK subsidiary by way of low-interest, long-term loans. **Page 8**  
● **AMALGAMATED** Union of Engineering Workers said some employers had already conceded in full the pay and conditions claim on which industrial action began this week. **Page 9**  
● **DEPARTMENT OF TRADE:** inspectors inquiring into the affairs of Ashbourne Investments and the ownership of the company have secured the conduct of four men. **Page 9**  
● **MANPOWER SERVICES:** Commission criticises private sector employers, particularly in manufacturing, for failing to participate fully in work experience schemes. **Page 9**  
● **FEDERAL RESERVE:** Bank of New York urged the Carter Administration to take advantage of the economic slowdown to work towards the restoration of price stability.

**All BP interests in Nigeria to be nationalised today**

BY MARK WEBSTER IN LAGOS

Nigeria is to nationalise all British Petroleum interests in the country from today in retaliation for BP's decision to sell crude oil to South Africa.

The Federal Military Government said yesterday that BP would lose its remaining equity entitlement to about 280,000 barrels a day and that its staff not on contracts with the Nigerian National Petroleum Corporation must leave the country before August 31.

The action follows BP's recent decision to ship crude oil to South Africa in order to ease the country's supply position following its loss of shipments from Iran.

Most members of the Organisation of Petroleum Exporting Countries have banned shipments to South Africa. Nigeria has been one of the leading proponents of the embargo.

BP said last night that all the employees had been "very strictly observed". The company was exporting neither cargo-borne crude nor North Sea oil to South Africa.

However, the Nigerian Government statement issued yesterday said that BP's intention to sell non-embargoed crude to South Africa in a swap arrangement using North Sea oil was a mere "subterfuge" for making Nigerian oil available to Pretoria.

BP had been given Government permission to increase

Commonwealth Conference feature, Page 16  
BP move increases gloom, Back Page

designed to put pressure on Britain over its policy towards Zimbabwe Rhodesia on the eve of the Commonwealth conference in Lusaka.

The Nigerian decision is a big blow to BP. The company was expected to lift 12m tonnes of Nigerian crude this year—about 8 to 10 per cent of its total supplies. Most of its Nigerian shipments have been going into European markets.

The company has already cut deliveries to third party customers to only 22 per cent in August, compared with 35 per cent in July.

The decision affects BP's remaining 20 per cent equity hold-

ing in a joint venture company with the Nigerian National Petroleum Corporation called Shell-BP and its 40 per cent equity stake in the marketing company BP (Nigeria).

Compensation for the takeover would be worked out on the basis of previous equity participation and paid very soon, according to the Nigerian statement.

Shell-BP produces more than half of the total Nigerian output which is now running at a record 2.4m barrels a day.

Because of a recent increase in the Government equity participation in all the operating companies in Nigeria, Shell-BP now has only 40 per cent of the equity between them. At the same time Shell still buys back about 190,000 b/d from the NNPC.

BP lost its buy-back entitlement at the time of the Kulu incident when a ship indirectly owned by South Africa was used to collect crude from a Nigerian port.

It is not clear how the Nigerian move will affect Shell, which already provides nearly all the staff for the operations of Shell-BP. But in a statement apparently designed to reassure

Continued on Back Page

**CBI forecasts industrial decline in coming year**

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

A GRADUAL decline in industrial activity over the next year was forecast yesterday by the Confederation of British Industry, with falling levels of orders, exports, profitability and investment.

This emerged from the CBI's quarterly industrial trends survey, showing that the increased industrial activity of the past few months has been temporary, and due mainly to a recovery of business after last winter's strikes.

The CBI forecasts the rate of return on capital employed will fall to 3 per cent at most this year and will drop even lower next year. This prospect will be discussed by the National Economic Development Council today which will also be warned by the CBI that there may be a downturn in investment.

Yesterday's survey showed that business confidence and investment intentions are weakening. Sir Ray Penneck, chairman of the CBI's economic situation committee and a deputy chairman of ICI, stressed that this did not mean that industry had lost confidence in the Government.

Sir Ray, who is to become CBI president next year, said: "In this lack of confidence for the future, we would be wrong to indicate that there is anything alarming. It is more a question of caution—and that is reflected in the investment situation," Sir Ray said.

He added that the CBI wanted the Government to remove the remaining exchange controls on foreign investment, and cut interest rates when it considered it right to do so.

But the Government is unlikely to come under any great immediate pressure on interest rates, even though the issue may be raised at today's NEDC meeting.

"If we tried to force the rates down faster than the Government felt it right, we would be in a greater mess. The rates should come down as soon as is consistent with a firm monetary policy."

Industry would have to "learn to become more efficient" so as to survive with the present policies.

The impact on exports of the recent rise in the pound is stressed in the survey, which is

Continued on Back Page

**Chrysler record 3-month loss**

BY JOHN WYLES IN NEW YORK

THE U.S. Treasury was driven yesterday to express concern about the outlook for Chrysler Corporation after the struggling motor company reported a second quarter loss of \$207.1m, the highest three-month deficit in its history and greater than its entire losses last year.

The Treasury's statement was undoubtedly prompted by the need to dispel fears that it is doing nothing to stop the country's third largest car and truck producer from sinking into deeper trouble. In their analysis of the difficulties, Mr. John Riccardo, Chrysler's chairman, and Mr. Lee Iacocca, president, yesterday called on the Government to "take prompt remedial action."

Chrysler has been urging the Government for several months to give it relief from fuel and emission regulations. It claims these impose unfair strains on its financial and other resources

because it is substantially smaller than its two rivals, General Motors and Ford Motor Company. Chrysler also wants special tax relief and access to Federal loan guarantees.

The Treasury said that it had joined the Federal Reserve Board on a study of Chrysler's financial records and operations. When this was completed, the Administration would be able "expeditiously to address Chrysler's proposals for assistance."

In the meantime, the Treasury was concerned about Chrysler's financial situation and its "possible impact on the overall economy" and on the company's employees and suppliers.

Mr. Riccardo and Mr. Iacocca claimed that the company was "stretched to the limit" by the task of meeting the regulations, and said that Chrysler had been plunged into a sharper crisis by

the "energy induced" decline in U.S. car and truck sales.

During the second quarter, the company's U.S. retail car sales fell 20.75 per cent on the same period last year. This was mild compared with the 57.5 per cent plunge in truck sales.

Chrysler's worldwide dollar sales fell from \$3.7bn to \$3.2bn. A profit of \$30.5m last year was transformed into a \$207.1m loss.

Chrysler lost \$205m last year, and analysts estimate that its 1979 deficit will easily exceed \$500m. The loss for the first six months totals \$250.9m (\$4.26 per common share), compared with a loss of \$69.3m (\$1.47 per common share).

Working capital fell from \$1.145bn at the end of last year's second three months to \$800m, and cash and securities was \$424m down at \$255m. Shareholders' funds equalled \$36.65 per common share compared with \$45.50.

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**CHIEF PRICE CHANGES YESTERDAY**  
(Prices in pence unless otherwise indicated)

RISES		FALLS	
Acrow A	50 + 5	Stylo Shoes	176 + 8
Anchor Chemical	88 + 4	Sunley (B.)	402 + 12
Automated Security	183 + 7	Taylor Woodrow	352 + 6
BAI Inds.	171 + 6	Trusthouse Forte	137 + 5
Bons	152 + 5	Vantona	118 + 4
Burnett Hallams	490 + 25	Ashton Mining	66 + 8
Cape Industries	202 + 5	Conzinc Riotinto	183 + 10
ERF	105 + 4	Northern Minings	66 + 7
Hawker Siddeley	186 + 6	Stirling Petroleum	15 + 5
ICI	340 + 10		
ICL	321 + 5		
ICM	435 + 10		
Meal Closures	131 + 20		
Midland Bank	346 + 6		
Restmor	89 + 7		
Sirix	95 + 4		
Stavert Zigomala	72 + 6		

**UK oil output adequate for month**

By Ray Dafter, Energy Editor

BRITAIN APPEARS to have become self-sufficient in oil for the first time, if only for one month.

Production from the first 13 oilfields in the UK sector of the North Sea reached a monthly peak of 6.87m tonnes in June, the equivalent of 1.74m barrels a day.

The Energy Department said yesterday that output rose by over 6 per cent compared with the previous month and by 56 per cent in June, 1978.

Consumption figures for June are still not known. But, stockbrokers Wood, Mackenzie report that given the seasonal weakness in demand it was likely that the country attained net self-sufficiency on a monthly basis. Britain's oil requirement averaged about 1.67m b/d during June and July last year.

**Enviably**

On an annual basis, the UK has some way to go before it achieves the enviable position of being a net exporter. The Energy Department said that average consumption was running at about 5m tonnes a month, or 1.95 barrels a day.

Two main contributors to Britain's increased production in June were the Chevron Group's Ninian Field and the Mobil consortium's Beryl discovery. Ninian's output rose from 180,000 barrels a day in May to 225,000 b/d in June, according to Wood, Mackenzie, while Beryl's production was increased from 80,000 b/d to 115,000 b/d.

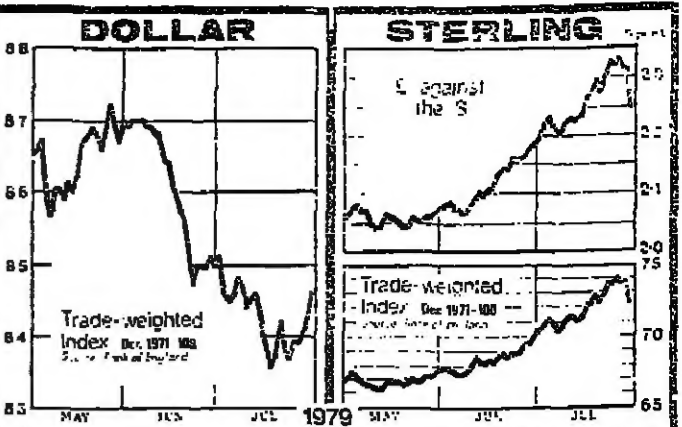
**Spending up**

Britain's spending on energy reached a record £17bn last year, about £1bn more than in 1977, according to another Department of Energy report published yesterday. The total energy bill represented an average of £6 a week for every man, woman and child in the country.

However, the amount of energy consumed rose by only 0.5 per cent when measured on a primary fuel basis. The consumption in 1978 was the equivalent of 340m tonnes of coal.

Manufacturing industries slightly increased their output but managed to use about 1.5 per cent less fuel than in 1977. Public sector consumption was down by 1 per cent. But fuels used in air and road transport rose by 8 and 5 per cent respectively.

Digest of United Kingdom Energy Statistics 1979. SO, £8.



**Sterling fall cancels gains of fortnight**

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

STERLING dropped sharply against all major currencies yesterday—ending the almost unbroken daily rise in the seven weeks since the Budget.

The trade-weighted index, measuring the value of sterling against a basket of other currencies, dropped by 0.5 per cent, while the pound fell by 6.55 cents against the dollar to \$2.2480. This is the largest decline in a day since early January 1978.

The fall only cancels out the sharp gains of the last fortnight, leaving the pound around its levels of mid-July.

The reversal was sudden, though dealers said they were not surprised that the reaction had been dramatic in view of the extent and speed of the recent rise.

The authorities are likely to be relieved by the shake-out though it may only represent a temporary hiccup.

Selling first developed overnight in New York and Chicago after comments by Mr. Paul Volcker, the chairman-designate of the U.S. Federal Reserve Board, about the priority of fighting inflation.

Consequently the rate was below \$2.30 when markets opened in Europe and conditions were generally nervous with business all one-way. Selling was renewed when U.S. markets opened in the early afternoon and the rate closed near its lowest levels.

After the initial drop a lot of the pressure reflected hurried closing of speculative positions in favour of sterling and against the dollar built up over the past month. In addition there may have been some buying of dollars for end of the month oil payments.

The Bank of England appears to have intervened on a small scale to smooth fluctuations at

£ in New York

	July 20	Previous
Spot	\$2.2550-2550	\$2.2515-2520
1 month	0.82-0.78	0.56-0.52
3 months	0.82-0.78	1.85-1.85
12 months	0.82-0.78	4.50-4.50

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## Soviet raps officials over mine deaths

By David Satter in Moscow

THREE MANAGERS of the Dzhezkazgan coppermines in Soviet Kazakhstan were reprimanded and other mine officials were tried and sentenced in connection with violations of safety regulations that led to the accidental deaths of three miners, the Soviet newspaper *Trud* reported.

Details of the negligence at one of the country's biggest coppermines bear a striking resemblance to allegations of inadequate safety procedures in the Donetsk coalmines, made by an unofficial workers' group, which was suppressed by the Soviet authorities recently.

*Trud* said that Mr. V. Gurbu, director of the Dzhezkazgan Copper Combine, Mr. D. Eshpanov, chief engineer, and Mr. Kostyanchenko, director of the Vostochny pit, were reprimanded and several junior officials sentenced after an accident at the Vostochny pit when the doors of a lift cage broke open and three men fell to their deaths.

The trade union daily said that the men were ordered to report in work on Sunday to clear a backlog in ore extraction caused by a period when the mine was under repair. Some 31 miners crowded into the lift cage, which was intended to hold only 20.

*Trud* said the mine officials tried to conceal the nature of the accident by pressuring miners to lie to investigators about the number of men in the cage.

The newspaper said that last year there were almost 5,000 violations of the safety rules at the Dzhezkazgan mines and that on more than 1,500 occasions it was necessary to suspend work.

Similar allegations about conditions in the Donetsk coalmines were made to Western correspondents last year by a group of unemployed workers.

Mr. Vladimir Klebanov, leader of the group, said that excess overtime in the mines led to accidents which resulted in 12 to 15 deaths a year and 700 injuries.

These and other allegations were documented for Western correspondents by the workers who said they suffered persecution when they tried to raise these matters.

## IFO WARNS AGAINST RESTRICTIVE POLICIES

# Germany faces slower 1980 growth

BY ROGER BOYES IN BONN

WEST GERMANY, digesting the effects of the oil crisis, faces the prospect of much slower growth and higher unemployment in 1980, although inflation may fall slightly, according to the latest report from IFO, the Munich-based research institute.

The upswing in the economy is however expected to continue this year and a growth rate of 3.5 to 4 per cent is forecast by the institute for 1979. But because of the oil price rises, disposable income is likely to fall in the coming year, while European and American demand for German products (IFO is reckoning with a recession in the U.S. in 1980) will also weaken. Combined with the tight monetary policies being pursued by the Bundesbank, these factors are likely to push down the growth rate to between 2 and 2.5 per cent in 1980.

This in turn is expected to increase unemployment with the number of jobless reaching 950,000 in 1980, compared with an anticipated 880,000 in 1979.

IFO's forecasts are based on the assumption that most German unions will not demand supplementary wage increases to compensate for the effects of the OPEC price rises. If the unions do demand extra "oil" money, and if the Central Bank tries to prevent an inflationary spiral by intensifying its restrictive policies, then a recession would be inevitable, IFO concludes.

The institute stresses that the Central Bank should stagger any further restrictive measures over a long period.

There is still a real possibility that the German trade unions will demand supplementary increases or at least incorporate an "oil" component in their next wage round. Although the leadership of the powerful metalworkers' union, IG-Metall, recently rejected such demands from its Baden-Wuerttemberg regional organisation, it is by no means certain that the grass roots membership will accept this decision.

IFO, and indeed the unions, appear to believe that much will depend on the future behaviour of the oil companies. IFO does not expect, for example, multinational companies to invest the bulk of their (substantially increased) profits in Germany. The companies have also been accused of unjustifiably raising their prices. The Federal Cartel Office last week expressed disbelief that the companies price rises were fully justified by the high OPEC increase. Deutsche BF, however, yesterday called on the Office to re-examine the evidence.

IFO considers that the main effects of the higher oil costs on overall German price levels will be felt in the second half of this year, and will not make a major impact on the 1980 inflation rate. If there are no further rises in the price of crude this year, then inflation could well be kept down to 4 per cent next year, marginally below the anticipated rate for this year.

German building contractors are continuing to report good business, IFO found, despite signs that the construction sector might be cooling down. Some 45 per cent of the respondents in IFO's survey said they had difficulties in fulfilling orders because of a shortage of skilled labour. Capacity utilisation was unusually high at a seasonally adjusted 70 per cent.

The Institute is, none the less, adamant that there should be no major public spending cutbacks in 1980 and that indeed extra funds should be channelled into the alternative energy field.

The mixed—and far from bleak—outlook presented by the institute is also reflected in its opinion. IFO found that manufacturing industry was expecting slightly tougher times ahead in the next six months, mainly because of the higher supplier prices. Orders however, were up in June as was capacity utilisation.

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## Sharp rise in Belgian inflation expected

By Giles Merritt in Brussels

A DANGEROUS surge in Belgium's inflation rate, carrying the threat of a cut in the country's vital export trade, has been disclosed in the Belgian Government's proposed 1980 Budget.

Details of the "austerity" Budget aimed at cutting the level of State borrowing next year have made it clear that a 6 per cent inflation rate is now expected for 1980.

Real GNP growth for next year is being calculated at about 2.34 per cent—somewhat lower than the expected 1979 figure of rather more than 3 per cent—while the overall increase in the Belgian economy will be 8.54 per cent.

Outlining the 1980 Budget, Belgian Cabinet Ministers have stressed that the package is intended to be a tough reversal of the country's growing dependence on State borrowing with the need to bolster the Belgian franc against further speculation as one of the primary considerations.

Next year the Government borrowing requirement is to be reduced to Bfr 231.7bn (£3.4bn), or 6.5 per cent of GNP, from the 1979 level of Bfr 230bn, or 7 per cent of GNP.

The 1980 Budget deficit is being reduced to Bfr 82.2bn from this year's level of about Bfr 100bn, with reduced social services spending being complemented by measures increasing taxation on the motorist.

An increase in petrol excise is being accompanied by a levy on motor-vehicle users.

The underlying problem spotlighted by the 1980 Budget is likely to be Belgium's continued competitiveness in her major export markets of West Germany and Holland, and the resilience of the Belgian franc.

The Belgian Government's calculation that the inflation rate of about 4.5 per cent for 1979 will next year rise to 6 per cent, coincides with West German forecasts of a 1980 inflation rate that will have slowed to just over 4 per cent.

During 1978, as part of its successful policy of pegging its inflation rate close to that of the Deutschmark, Belgium reduced inflation to 3.7 per cent.

Earlier this summer, the Belgian franc was subjected to a series of speculative raids on the foreign exchange market, with selling largely prompted by fears that soaring inflation, State borrowing was depriving Belgium industry of access to the domestic capital market, thus constricting growth.

The fear of a determined run on the Belgian franc has apparently been uppermost in the Belgian Government's mind.

Turkish payments ANKARA—Turkey will resume foreign exchange transfers for import payments tomorrow after a virtual halt since early 1977.

The Governor of the Central Bank announced on Tuesday.

Mr. Ismail Hekki Ardicoglu said that \$185m had been earmarked to buy iron, steel, chemicals and machine parts over the next two months.

Turkey, suffering its worst economic crisis and foreign currency shortage in decades, has limited its imports to oil and a few other vital items for more than two years.



DR. SHAHPOOR BAKHTIAR, the Shah of Iran's last Prime Minister (pictured above), whose whereabouts have been a mystery since he fled from his country last February, has reappeared in Paris, where he gave a surprise press conference yesterday during which he bitterly attacked the present Iranian regime.

Robert Mauthner in Paris. Dr. Bakhtiar, who was agent from office by the revolutionary movement led by Ayatollah Khomeini and who has been condemned to death in his absence, proposed that a referendum should be held to allow the Iranian people to choose freely between a monarchy and a republican government.

He painted a "catastrophic picture of the present situation in his country. The revolution was a step back into the past, he said. The chaos and agitation in the country was sickening and tens of thousands of innocent people had been killed.

Regarding his own political future, Dr. Bakhtiar hinted that he would be a last source. He indicated that he was living in France and said he had received a three months residence permit.

## Iran to hold crisis talks on economy

By Andrew Whitley in Tehran

WITH THE Iranian domestic economy still struggling nearly six months after the revolution, a top-level crisis conference is to be held in Tehran next week.

Organised by Mr. Mohammad Ali Mowjavi, the governor of the Central Bank, businessmen, economists, experts and government ministers have been invited to attend.

Mr. Mowjavi, who is known to be concerned at the hasty and ill-conceived nationalisation of large sections of the economy and which was not consulted, has threatened to resign if the measures agreed at the conference are not implemented.

Mr. Mowjavi said the conference would evaluate Iran's credit, banking and monetary policy. High on the agenda is expected to be the need to restore business confidence as well as a new international parity for the rial.

Meanwhile, in a separate development, a senior oil company official has reported that the current talks with the former Western Oil Consortium operating in Iran have run into difficulties.

Dr. Kazem Hassibi, senior adviser to the chairman of the National Iranian Oil Company, said that the consortium's board of directors had rejected NIOC's proposals on the settlement of their accounts, without giving any reasons. Iran was acquiring about the situation.

In the daily newspaper *Bourse*, Dr. Hassibi is quoted as saying that while Iran wanted to settle all outstanding financial obligations in toto, the consortium was insisting on a piecemeal approach.

The 14-member consortium, led by BP, produced the bulk of Iran's crude oil for more than 20 years up to last December and also marketed the majority of it. Talks on the debts and the possible purchase by Iran of a consortium subsidiary company, IROS, began in London in June.

No details have been disclosed of NIOC's demands from the consortium during the recent talks, but it appears that Iran is asking for compensation for what the Shah's regime had claimed were the western oil companies' failure to meet Iran's oil requirements. The consortium, under the terms of a 20-year agreement signed in 1973, had refused the NIOC proposals because they knew they would have to pay large sums for their previous broken commitments.

He criticised the consortium for delaying moves on the issue, but said nevertheless that the bilateral talks had not stopped.

In sharp contrast with the stagnation of domestic economic activity, Iran's oil exports have continued to a steady rise. In the country's foreign exchange and gold reserves.

In an interview with the newspaper *Ettelaat* the Central Bank governor said that at the end of the last Iranian month, June 22, the reserves were about \$11bn. At the time of the revolution the reserves were "generally estimated at \$3bn.

THE Egyptian Defence Minister, General Kamel Hassan Ali, denied yesterday that his country had violated the peace agreement with Israel by maintaining a military presence at the El Arish airfield in Sinai.

Concluding a three-day visit to Israel, the Defence Minister said that the military personnel present at the airfield, which was handed back by Israel two months ago, were training a civilian team to take over the field.

General Ali was responding to complaints by Israeli Ministers that Egypt had failed to comply with the peace treaty provision that the airfield be returned to Egypt in Sinai must be used only for civilian purposes.

Mr. Ezer Weizman, the Israeli Defence Minister, said that he and his guests had reached agreement on all military issues during their three days of talks.

This included the need to arrange for some form of United Nations of international force to police the buffer zones in Sinai. General Ali said that Egypt would be open-minded on this point, which has been made an issue by Mr. Moshe Dayan, the Israeli Foreign Minister.

Meanwhile, the Jewish township of Yamit in northern Sinai went on strike yesterday and the roads into Sinai were blocked by the settlers, who want the Government to speed up the decision on compensation for settlers' homes.

At the same time, a government committee has decided to allocate \$1250m (\$5.8m) from the budget reserve for the creation of 13 Jewish settlements in the occupied West Bank, Gaza Strip and Golan Heights.

telephone with his Iraqi opposite number and to have sent Mr. Abdul Halim Khaddam, the Foreign Minister, and Major General Hikmat Chehab, the chief of staff to Baghdad, according to Arab diplomats in Beirut.

Their aim is to emphasise that the Syrian Government was not involved in the conspiracy, even though one of the leading Iraqi plotters, Mr. Mokhib Abdur Hussein Makhadmeh, confessed to having been in contact with a senior member of the Syrian regime.

Syria is thus in a deeply embarrassing position.

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## Big drop likely in Italy's current account surplus

By Paul Betts in Rome

THERE ARE signs that Italy's substantial current account payments surplus could shortly come under pressure as a result of rising oil prices and a deterioration in the terms of trade. Last year's current account surplus of over L5,000bn (£2.64bn) is likely to be more than halved, on present trends.

Italy is estimated to have to pay L4,000bn more for oil during the next 12 months. Exports appear to have been hit by flagging world demand, uncertainties over future domestic consumption and the protracted industrial unrest during the recent renegotiation of a series of national labour contracts.

Moreover, inflation is continuing to accelerate and latest estimates indicate that the annual rate could reach 18 per cent at the end of the year, compared with an original target of about 12 per cent.

According to the national economics institute, ISTAT, there are also indications that the strong recovery of industrial production at the end of last year and in the first months of this year is beginning to flag.

None the less, overall growth is expected to increase this year by 4.5 per cent. There is likely to be a turnaround next year, however, when some economists believe growth may drop to 2 per cent.

Some analysts in the industry consider that the Government should have gone the whole hog and merged Usinor and Sacilor, but the existing pattern of production presents a fairly rational solution to the problems of manufacturing economies.

Sacilor-Sollac, the result of an earlier merger, is almost entirely based in the Moselle region of Lorraine. Usinor's main production facility is now at its big, modern steel-making complex at Dunkirk. The country has only one other big centre, at Fos, near Marseilles, at a modern complex owned jointly by the two steel companies.

These three geographical zones will provide the main poles on which the industry of the future will be concentrated. To reach this target, the companies are applying the classic remedies—trimming overheads, introducing competitive technology, and getting rid of the remote, out-dated plants which owe their existence only to worked-out ore deposits.

This programme will in some ways be more difficult for Usinor than Sacilor. The former's problem is that its older manufacturing complexes in the North around the Valenciennes and in west Lorraine at Longwy, are in relatively isolated locations.

It was the decline of the coal and iron ore industries in these areas which forced the company out into the coastal development at Dunkirk. Most of what is left of the traditional plants has become uncompetitive. Thus the axe is falling savagely in these areas.

Both the Valenciennes region and Longwy will lose about 5,000 jobs in the next two years, and steel-making will virtually come to an end.

What is being kept at both these sites are the rolling facilities, mainly because the expensive investment in these plants has already been made.

The overall effect of Usinor's moves will be to emphasise the concentration of its productive capacity, which will stabilise at about 11m tonnes, on Dunkirk. This is reckoned to be one of the most modern and efficient steel works in Western Europe, importing ore, working it, and producing mainly flat products at the end.

It will also be used to produce Denain's hot strip rolling mill. Sacilor has a more solid position in its traditional steel-making area because the Lorraine iron ore deposits which it owns are reckoned to have another 40 years of life at current rates of extraction.

But manufacturing can still only continue at considerable cost. Some 8,500 jobs will go in this area, from a swingeing cut-back programme which includes the closure of 14 steel works, 14 roughing mills and 35 finishing mills.

About FF11bn (about £10m) a year is currently being spent in modernising what is left. The

## Spain adopts 1980s energy plan

By David Gardner in Madrid

THE SPANISH Parliament has at last approved the National Energy Plan for 1977-87, after more than a year's hesitation over nuclear power. By a 40-vote majority in the Cortes, the Government has approved seven new nuclear power plants already under construction, and three or four plants out of eight with outline approval.

Spain already has three nuclear plants working, and the new ones will boost nuclear generated energy production to around 11,000 MW by 1987. Expected Communist and Socialist opposition to a programme which will eventually mean that some 15 per cent of the country's energy is nuclear-based, has been blunted by the recent OPEC price rises.

The NEP, in which strong emphasis has been put on the need to reduce wasteful energy consumption, contains estimates that energy demand will rise to 145m metric tonnes coal equivalent by 1987. A new development is that the Government will be empowered both to revise this projection, and to authorise new nuclear plants.

The central goal of the plan is to reduce Spain's dependence on imported fossil fuels for nearly 70 per cent of its primary energy needs. To do this, the plan aims to double coal production during the life of the plan; raise the contribution of natural gas to energy consumption from the present 2 per cent to 7 per cent by pressing ahead with an Algerian-Spanish gas pipeline; and to encourage, through financial

and fiscal incentives, energy saving, research into new forms of energy, and exploration for energy-producing raw materials particularly uranium.

The plan also provides for the rebuilding of strategic stocks of oil and derivatives, coal and uranium. Oil stocks in particular were badly depleted in the wake of the Iranian revolution, while the pressure of maintaining supplies of aviation fuel and petrol for Spain's valuable tourist traffic has forced the Government to buy more than 1m tonnes at spot market prices.

Approval of the plan will give an immediate boost to the construction and capital goods industries, which claim that contracts worth more than \$500m have been blocked by the 18-month delay.

These constraints forced on the project because of the slump, have undermined the profitability of Fos. Nevertheless, it is now believed to be running on the right side of break-even.

Most observers accept that these sweeping plans for the French industry will give it a fighting chance of meeting its financial targets in the early 1980s.

It will be helped towards this objective by the decision of the Government to free steel prices, which have been controlled for the last 20 years and depressed well below world and West European levels during the 1970s. French prices are now edging closer to the European levels and the steel companies say they will be happy with another 1 or 2 per cent increase.

However, doubts remain about whether the French groups have the long-term flexibility and range of products essential for heavy industry survival.

The main change in the industry has been—and continues to be—the push towards flat, as opposed to long, products, based on the long-term forecast of continuing growth in the steel plate-using sectors, such as the vehicle and consumer durable industries.

Usinor is calculated to have at least 80 per cent of its production in this area already. Sacilor's objective is to move towards a 60-40 ratio of flat to long. But observers point out that this is a common trend in the world industry which will inevitably increase overall competition. Meanwhile, they ask, what is being done to invest in specialty sectors?

Some detailed answers to this question may come during the next few months. The French special steel industry, which at an output of about 3.5m tonnes a year, is at present going through a period of agonising reappraisal which may lead to the absorption of some of its facilities into the bulk producers.

Already, both Usinor and Sacilor have indicated that they are interested in diversifying their base of operations. Usinor took on some special activities with the purchase of Châtillon-Neuves-Maisons a year ago, and just last week, Sacilor has taken over Pomorye, a group with products aimed particularly at the motor industry.

Sacilor has also moved recently into stockholding, with the purchase of Daryum a group with international interests. In addition, it says that it is trying to pick on particular areas where clients have specific needs and margins are higher. For example, it is moving out of bars for pre-stressed concrete, and moving into higher quality bars for nuclear power stations.

But these developments must, for the moment, be a secondary consideration. The main target, and the one on which the Government will judge the new management, is to get the rationalisation programme successfully over and null the industry back into profits.

support and operation. The cancellation by Iran of seven AWACS aircraft has also increased overheads and unit costs for Boeing, which has had to correspondingly shorten its production line.

The offset deal played an important part in persuading the Germans to take on its DM 1.18bn share of the AWACS project. However, doubts persist, especially about the overall costs, including spares, training,

and fiscal incentives, energy saving, research into new forms of energy, and exploration for energy-producing raw materials particularly uranium.

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# New threat to Janata Party

BY K. K. SHARMA IN NEW DELHI

THE POLITICAL changes in India, which have brought into power a coalition government led by Mr. Charan Singh of the newly-formed Janata (S), are now having their impact on the States ruled by the Janata Party.

The party rules six States in the northern Hindi-speaking belt. With the formation of Mr. Charan Singh's new Janata (S), their Governments are threatened, since many legislators are expected to flock to the Prime Minister's party.

The immediate threat is to the Janata Ministry in the northern State of Haryana, where a protégé of Mr. Charan Singh was recently replaced. Changes are also expected in Uttar Pradesh and Rajasthan, where the Janata Party is breaking up.

This has led to the curious

position that both the Janata Party and the new Janata (S) are seeking the support of Mrs. Indira Gandhi's Congress (I) faction.

They are doing so in New Delhi—the Janata in order to topple the new Government and the Janata (S) to survive—and are doing much the same in the States, although Mrs. Gandhi's following there is limited.

In the turbulent State of Bihar, Mrs. Gandhi prevented the Janata Government from being toppled by asking her followers to support it in a confidence vote.

She did this because she does not want the stigma of removing the Harijan (untouchable) chief Minister in power there. Another reason is that her emissaries are high-ranking talks with Mr. Jagjivan Ram, the Harijan leader, now

leader of the Opposition in Parliament. Mr. Ram has been elected leader of the Janata Parliamentary Party in place of Mr. Morarji Desai, who has announced his retirement from public life.

Mr. Ram insists that the Charan Singh coalition is in a minority and that he will be able to prove this when Parliament meets in the third week of August.

But to achieve this he needs the support of Mrs. Gandhi. Overtures to her made by Mr. Ram have been received surprisingly well. The reason is the growing tension between Mr. Charan Singh's Janata (S) and Mrs. Gandhi and her supporters in Parliament.

Mrs. Gandhi is visibly annoyed at the inclusion in Mr. Charan Singh's Cabinet of Congress Ministers with whom

she has quarrelled. Mr. Charan Singh has appointed as his Law Minister Mr. H. R. Khanna, a former Judge of the Supreme Court, who was passed over for the post of Chief Justice by Mrs. Gandhi.

She has taken this to mean that Mr. Charan Singh plans to press ahead with cases against herself, her son and his associates.

This is probably a correct assessment, since Mr. Charan Singh has indicated that he does not intend to permit Mrs. Gandhi to dictate terms to him. Rather than wait for her challenge, he has decided to call the cards from the start.

The attitude of both increases the prospects of factional manoeuvring and adds to instability, both in New Delhi and in the States.

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## Japanese seek cut in deficit spending

By Richard Hanson in Tokyo

THE JAPANESE Ministry of Finance (MOF) is seeking to hold the increase in appropriation requests for next fiscal year's national budget to an austere 10 per cent to help to reduce deficit spending by the Government, according to a draft compilation plan submitted to the Cabinet yesterday.

The plan would limit the increase in fiscal 1980, starting March 31 that year, to about 9.8 per cent over the fiscal 1979 budget. The fiscal 1979 rise was 13.8 per cent, compared with 14.6 per cent for fiscal 1978. This year's ten 38,000bn general account budget depends nearly 40 per cent on financing through issues of national bonds, which has thrown the domestic bond market into disarray.

The Finance Minister, Mr. Imai Kaneko, told the Cabinet that no increase will be allowed in administrative expenses. Rises in outlays for policy projects will be limited to 10 per cent, but spending in cover foreign aid will be allowed to increase by more to meet Japan's promise to boost official development aid.

Outlays on energy development will also be exempted.

Work on the budget has begun rather early this year. Various Government ministries and agencies are expected to submit requests for appropriations for the next year by the end of next month. It is the first time in nearly two decades that the Finance Ministry has attempted to limit the increase to below 10 per cent.

## FIGHTING CONTINUES IN AFGHANISTAN

# Russian aid vital to régime

BY SIMON HENDERSON IN ISLAMABAD

CONSTANT FIGHTING on the Pakistan-Afghanistan border, so much a part of life in Kipling's time between the British Army and local tribesmen, continues today.

Except that now Russian officers advise the army of Afghan President Nur Mohammed Taraki, who are falling to bullets aimed by Moslem tribesmen. And instead of jezails (muskets) the tribesmen are using old British Army 303 rifles, or increasingly frequently, modern Russian AK47 assault rifles.

The fighting, which began soon after the coup that overthrew President Daoud in April 1978, has escalated in the past few months so that most areas of the country are affected. In the past week alone the rebels have cut the main road from Kabul to the Pakistan border in Islamabad three times.

It is almost a stalemate. Conservative tribesmen, annoyed by Taraki's reforms in education and agriculture and his links with the "godless" Russians, control the country at night, right up to the outskirts of the main towns. The government forces, bolstered by 4,000 Russian advisers, rule during the day, even though several garrisons in the eastern provinces are effectively cut off except by helicopter or armoured column.

Russia has long tried to assert influence over Afghanistan. There were Russian advisers even in Daoud's day, but Russia, so the Pakistanis believe, is now trying to take advantage of Taraki's left wing Khalq Party rule to push south for a port on the Indian ocean.

With the post-revolutionary chaos in Iran, Pakistan sees itself as the next domino to fall. It is particularly scared of the prospect of Russian-backed Afghan attempts to preach secession in the minority provinces of Baluchistan. The West, annoyed by Pakistan's barely concealed efforts to make a nuclear bomb, is not, in the opinion of Islamabad, doing enough to help.



Pakistan is left playing a cautious game. More than 120,000 Afghan refugees from the fighting live in Pakistan's border areas. The total cost is high—\$20 a head each month for food and tents, more than a prior country like Pakistan can afford.

The danger is that the Afghan army will take action against rebel camps in Pakistan. Already there have been incidents of shelling and strafing. Pakistan officials say they have kept most of their own armies out of the fighting and they disarm he refugees as they come over. But traditionally most men in the north-west frontier province are armed, so tight control is impossible.

In the provincial capital, Peshawar, rebel groups have offices complete with their own armed guards. But they are kept under close surveillance, sometimes amounting to house arrest. The lack of unity of the groups is their greatest weakness. The actual fighting is done mainly by the different tribal groups.

The victories against the Afghan army have been significant but not mauling. Convoys have been destroyed, and the occasional helicopter shot down. So many AK47 rifles have been captured that the black market price in Pakistan has fallen from \$5,000 each to under \$1,000.

But militarily the Kabul régime is holding on. Russian-supplied Mi-24 helicopter gunships are in action regularly. Napalm has been used at least once on a tribal camp.

Diplomatic reports from Kabul now indicate that the Russians may be trying to avoid further political embarrassment by encouraging a change in Chahar Part leadership. The 62-year-old Taraki might be safe as he is a father figure to the nation and to remove him would be to discredit themselves completely. But Hafizullah Amin, the Foreign Minister and described as "Taraki's hatchetman," might be dispensable.

The Russians have some leeway. Elite groups in the military remain loyal to the régime, particularly the armoured corps. Also, even if the tribes were to unite and succeed in overthrowing the régime completely, any new government would still have to deal closely with Moscow, a fact of life which even the rebels recognise. Moscow would never tolerate an Islamic régime on Iranian lines to establish itself in Afghanistan, where the strategic stakes are so great.

So far there has been no recognisable external aid to the rebels. They have had to rely on private contributions and by moving into the international drugs trade emanating from the area's vast crop of opium poppies. But confrontation with the Russians might encourage the Arab Gulf states and Saudi Arabia, worried by the tightening Soviet noose on the straits of Hormuz, to act more openly.

## Sithole party ends boycott of Parliament

SALISBURY — Zimbabwe Rhodesia's main internal black opposition party today announced that it was ending its boycott of Parliament.

The Rev. Ndabaningi Sithole told a news conference that his Zimbabwe African National Union (ZANU) faction was to drop the protest boycott it began immediately after the General Election in April brought his rival, Prime Minister Abel Muzorewa, to power.

Zanu-Sithole cold-shouldered the handover from mainly white rule alleging that Bishop Muzorewa's election victory was rigged.

Zanu-Sithole won 12 parliamentary seats in the election, entitling it to two posts in the bi-racial coalition Cabinet. But Mr. Sithole said it had not been decided whether or not to take them up.

Mr. Sithole said his party was going ahead with a petition,

to be heard by the High Court on August 29, detailing alleged election irregularities and demanding that the poll be declared null and void.

But he said: "Our supporters and many people throughout the country now feel satisfied that our point on irregularities has been sufficiently made."

He supported the reform of the constitution to give the administration a referendum on a new constitution involving blacks and whites, and another General Election.

"People already expect another, and more conclusive, election. Because of our tireless vigilance is bound to seek other possible election machinery," he said.

Mr. Sithole's announcement followed a weekend party conference in Bulawayo. He said there was a growing feeling in Zimbabwe Rhodesia that since the installation of a

bi-racial, black-led government on June 1 the aspirations of the African people were being betrayed.

His party had to rescue African interests now being dangerously compromised in the name of maintaining white standards, Mr. Sithole said.

The Muzorewa Government, which includes five white Ministers, was not aware of its new role, he said. It gave the impression it was an extension of the Rhodesian Front of former Prime Minister Ian Smith.

Mr. Smith is Minister without Portfolio in the Government, which Mr. Sithole described as having an African face with a white substance.

The Cabinet Portfolios of Health and Roads are being held in an acting capacity by two of the present 17 Cabinet Ministers, awaiting their taking up by Zanu-Sithole.

Mr. Sithole said it had not been decided whether Zanu would be taking up the Cabinet posts or, if they did, when this would be.

The present Cabinet includes ten members of the Prime Minister's United African National Council (UANC), five members of the Rhodesian Front and two members of the United National Federal Party (UNFP) of Chief Kaizer Ndlovu.

The UANC holds 44 parliamentary seats, the RF 28, Zanu-Sithole 12 and the UNFP nine. The remaining seven seats are held by the Zimbabwe Democratic Party of veteran nationalist Mr. James Chimpenema, who split with the UANC in June, alleging it was being run by a "tribal mafia."

Reuter

## Hong Kong money supply soars

BY PHILIP BOWRING IN HONG KONG

HONG KONG's money supply according to the broadly-defined M2 indicator rose a further 2.9 per cent in June, with domestic loans and advances up by 2.8 per cent, compared with May.

The Government purports to see in the figures a slackening in new credit creation, but it is now widely believed that the situation is hopelessly out of control.

Ten months ago Mr. Philip Haddon-Cave, Financial Secretary, warned of the dangerous de-stabilising impact of the high rate of credit growth then pre-

vailing—more than 40 per cent. Despite speeches and warnings of "Government action unless the banks reined in their lending growth, the rate of increase has barely slackened. On a 12-month basis, advances are up 46 per cent, and on the latest month-to-month annualised basis, up about 49 per cent.

Loans in Hong Kong have doubled in only 26 months with real GDP growth this year likely to be in single figures. Continuing rapid growth in credit is likely to mean continuing double-digit inflation and the

weakening of an already weak currency. The trade-weighted index of the Hong Kong dollar is now at an index level of 88, nearly 2.8 per cent below the high reached two-and-a-half years ago.

The attitude towards credit creation may explain the recent upsurge in the stock market. The Hang Seng index lost 19 points yesterday, but has still gained 65 points this month despite the growing likelihood of a U.S. recession which would have a direct impact on Hong Kong.

## Peking attacks the 'high life'

REFORM of the Chinese Communist Party's cadre system—the culmination of months of protest against leaders who buy luxuries and seek privileges for themselves and their families—has been urged by Hu Yaobang, Third Secretary of the party's Central Commission for Inspecting Discipline, AP reports from Peking.

Regulations must be drawn up at once to enforce discipline, overcome factionalism and safeguard unity, Hu declared. The new rules should include "criteria for the party's internal political life, standards for the living conditions of leading cadres, concrete stipulations for the conscientious practice of democracy, and the rights and duties of party members."

## New Australia 'strike'

Minor indications of liquid hydrocarbons have been encountered in the Bruce No. 1 Well off Western Australia, Striding Petroleum said yesterday. Reuter reports from Perth. A rig is preparing to drill to a depth of 2,800 ft off Port Hedland.

## Boat people search

Ship of the U.S. Seventh Fleet which last week rescued 65 Vietnamese refugees from the South China Sea, will make a similar sweep in the opposite direction at the end of the week, Reuter reports from Manila. The task force, headed by the carrier Kittyhawk, is now at Pattaya, Thailand.

## N. Korea accused

The U.S. Command accused North Korea yesterday of continued infiltration of "hostile forces" into South Korea, by sending an armed spy boat deep into South Korean waters recently. AP reports from Pusanjin, Maj. Gen. Han Jik-yong, chief Pyongyang delegate, flatly rejected the charge as a "fabrication," and claimed that Pyonyang had nothing to do with the alleged incident.

## China's new laws stress rights of the individual

BY COLINA MacDOUGALL

AFTER 13 years during which the rule of law was virtually suspended, China's National People's Congress early last month promulgated new legislation.

Of the seven laws pushed, one concerns joint ventures with foreigners and two are constitutional matters. The remaining four, however, relate directly to the rights of individual in criminal and judicial matters. They represent an effort by the leadership to create a more equitable society by reducing the powers of public security officials and the party, who until now have been able to enforce arbitrary and personal judgments.

The new system revises earlier legislation set up in 1954. This formal legal system had three components: the courts, the police (the public security administration) and the procuratorate.

It functioned up to the cultural revolution but was destroyed in the violence and was not restored. Under the 1975 constitution, the procuratorate was placed under public security administration, but last year the National People's Congress re-established it independently, as a forerunner to the new system.

In the 1950s the legal system operated alongside the formal system of justice applying the

party, which often had the right of investigation and decision. Since the cultural revolution this trend has increased, with the public security administration, if it functioned at all, doing so in secret and without the courts while the party made its own judgments and awarded its own punishments.

Few, if any, had anything approaching a fair trial for offences such as "taking the capitalist road," for which the sentence, culled during the cultural revolution, was despatch to the countryside accompanied by beatings, often ending in death.

The rule of law is such a foreign concept to the Chinese of today that so far bafflement is the main reaction. Peng Zhen, once a close associate of Mao but himself a victim of political judgement in the cultural revolution and rehabilitated last December, last week had to explain to a legal gathering that the final authority in judicial matters does now rest with the law, not the party.

Perhaps ominously he added that party committees should "examine and supervise the work of the courts and procuratorates."

Nevertheless, the present leadership obviously recognises the need to have some check on the party or it would not have revived the legal system at all.

## Loan problems for Asia

BY BRIJ KHANDARIA IN GENEVA

ASIA's developing countries are running into increasing difficulties in their attempts to obtain loans on favourable terms from foreign governments and private banks, according to a United Nations report.

In overall terms, the share of private banking has increased, but the developing nations are less successful in obtaining loans on concessional terms.

The report, presented to the UN Economic and Social Council annual session in Geneva, summarises economic conditions and social conditions in Asian countries.

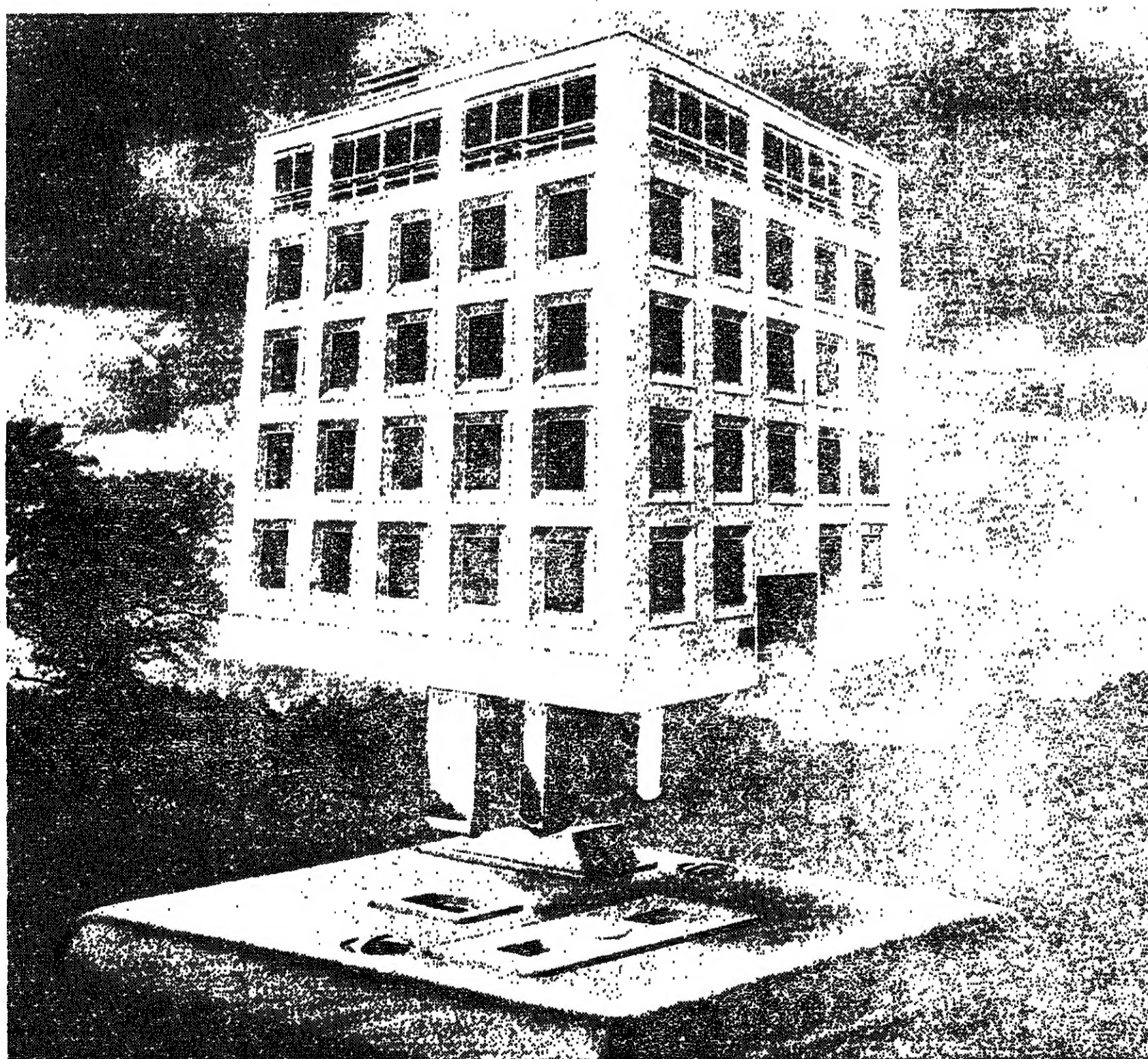
Concessional terms are not offered to many Asian countries because of their low credit ratings, the report says among the worst-hit countries those

in the Indo-Chinese peninsula where continuing conflict and political instability are hampering economic performance as well as regional co-operation.

The Far Eastern countries registered high industrial and economic growth rates, but their more successful manufacturing sectors such as textiles and clothing, footwear, steel shipbuilding and petrochemicals are now jeopardised by increasing protectionist barriers raised by their better-industrialised customers.

The South Asian countries gave the most disappointing economic performance in both the food and industrial sectors.

The Association of South-East Asian Nations (ASEAN) is emerging as an increasingly important force in the Indo-Chinese area.



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Doubts thrown on treaty's ratification

## Kissinger SALT backing hedged with reservations

BY JUREK MARTIN, U.S. EDITOR, IN WASHINGTON

Dr. HENRY KISSINGER, the former Secretary of State, yesterday issued an endorsement of the Strategic Arms Limitation Agreement with the Soviet Union so hedged with qualifications and attendant recommendations as to enhance doubts that the U.S. Senate will ultimately ratify the treaty in its present form.

In effect, Dr. Kissinger proposed that SALT should be approved only if the Administration and Congress together produced a major defence spending programme to rectify the threatened military imbalance with the Soviet Union.

He urged the Senate to issue a "vigorous expression" of its view of the linkage between SALT and the Soviet Union's conduct elsewhere in the world and also to add to the treaty such amendments which, while not requiring renegotiations of the agreement itself, clear up what he described as "ambiguous" in the current document.

His testimony before the Senate Foreign Relations Committee has perhaps been the most eagerly awaited to date. Controller of U.S. foreign policy for eight years in the Nixon and Ford Administrations, his advice was expected to weigh heavily on the odd senators whose votes on SALT remain an unknown quantity.

The committee hearing room was packed yesterday with interested observers and his lengthy testimony was prepared and delivered in such a manner as to command the maximum attention. Just about every journalist in town, it appeared, was provided with copies of what he was to say in ample time for deep perusal.

But perhaps the most telling comment of all came when Senator Jacob Javits pressed him as to what he would recommend if the SALT treaty were subject to a straight up and down vote. Dr. Kissinger responded that although it was not that simple, he would vote "No" unless the sort of reservations he had outlined were put into effect.

Dr. Kissinger had given a pretty fair indication of his thinking on SALT in a long article he wrote for the Economist earlier this year. Since then, a number of other influential senators, most notably and recently Senator Sam Nunn, the Georgia Democrat, have also called on President Carter to undertake a major development of U.S. military capabilities so as to reinforce American resources to combat Soviet "aggression" in other parts of the world.

Dr. Kissinger returned to this theme yesterday in arguing that SALT cannot be considered in isolation since that would risk misleading the Soviet Union: "Moscow cannot have it both ways," he said: "the slogan of detente and the reality of the systematic undermining of the geopolitical equilibrium."

Nevertheless he did acknowledge that failure to ratify the SALT treaty would be seen as having a disruptive impact on East-West relations and added that "any fair-minded analysis" of SALT would have to conclude that it had beneficial aspects in its placing of overall ceilings on strategic missile systems.

But the nub of his objections was that any strategic arms limitation agreement tended to ratify existing trends in respect to military ability—and the trend over the last decade and more, he argued, so favoured the Soviet Union at the expense of the United States that remedial action was imperative if the U.S. were not to be placed in grave danger in the years ahead.

He did not seek to lay out what weapons systems the U.S. should develop in any new programme, though he sharply disagreed with the assertion that the Carter Administration had been faced with "a choice between going ahead with the B-1 bomber and deploying the Cruise missile."

But he did recommend that the protocol which accompanies the treaty and which limits



Senator Javits (above) pressed Dr. Kissinger (below) to say how he would vote on the treaty: the answer was against.



Cruise missile deployment should not be extended beyond its scheduled 1981 expiry date: that the Senate should issue a statement that the U.S. should be entitled to any new weapons systems permitted the Soviet Union under the agreement; and that it should be made clear that the NATO allies should be entitled to whatever new technology the U.S. develops.

He also advocated that the Administration be required to submit an annual report to Congress on Soviet compliance with a SALT treaty, with the Senate retaining the option of ordering any subsequent strategic limitation talks be terminated if compliance is unsatisfactory or if Soviet geopolitical behaviour was inimical to U.S. interests.

## When one American dream comes true

By Marilyn Eldid

OWNING a home has been one part of the "American dream" long denied urban apartment dwellers—until recently. Now, instead of giving the monthly cheque to a landlord, a growing number of Americans are making mortgage payments on their own flats.

From Chicago to Washington, DC, San Francisco, Los Angeles, and surrounding suburbs, conversions of rental flats into individually-owned flats, or condominiums, is becoming so prevalent and generating such protest that many city governments have passed or are considering restrictive legislation.

In Chicago, for instance, since the first building was converted into condominiums in 1965, about 50,000 flats out of an estimated 900,000 have disappeared from the rental rolls.

Real estate experts report about 5,000 flats were put up for sale in the first five months of this year, while 1,356 units went on the market in Washington DC during the first quarter.

Condominiums are individually-owned units within a building, where common property, such as hallways and grounds, is held by all the flat-owners who pay property taxes, mortgages and ordinary bills for their particular units, but share maintenance costs for the common territory.

The conversion craze has been dubbed "condomania" and is prompted in part by recent changes in federal income tax laws that decrease the tax liability of a building owner who sells his property and by the handsome returns accruing to developers who convert buildings into condominiums.

Demand is booming because of the growing tendency of individuals to perceive property ownership as a risk-free investment and because flat-owners build up equity while benefiting from federal and state tax deductions for mortgage interest payments and local property taxes.

Aside from the personal advantages, condominium supporters insist that property ownership is a boon to the cities—promoting stability, increasing property values and encouraging political involvement by people who now have a stake in the community.

But condominiums are also under attack. Citizens' groups direct their criticism to the conversion process, claiming that only more affluent people benefit.

The citizens' groups also say that the sudden loss of so many rental units artificially forces up the rent of those that remain. The critics even include some landlords, who say their best tenants are moving out to become "condo-owners."

Despite powerful real estate interests pushing the conversion process, politicians are not ignoring the strident citizen protests.

In Chicago, two City Council sub-committees are studying more than 20 ordinances that would curb the conversion craze by imposing a windfall profits tax on "condo-developers" and granting tenants the right of first refusal to purchase their building once it goes up for sale and arrange the conversion themselves—at a tremendous financial saving.

San Francisco's Board of Supervisors recently passed legislation limiting to 1,000 the number of annual conversions, and requiring that 40 per cent of the existing tenants express their intent to purchase their flat before the building can be converted.

Washington DC City Council passed a 90-day moratorium on conversion of high-rise housing effective from May 29.

Incentives During this time, an 11-person commission is developing recommendations on such issues as incentives to build rental housing and the creation of a revolving loan fund for low and moderate income earners who want to buy condominiums.

Condominiums are often expensive. Two-bedroom units on Los Angeles' west side sell for \$125,000-\$500,000 and start at \$85,000 in Washington DC. In Chicago, most of the converted properties are high-rise buildings located in the city's fashionable neighbourhoods.

In the more desirable areas, purchasers are paying \$100 a square ft, which places many units in the category of \$100,000 and above. With mortgage interest rates hovering around 11 per cent and monthly maintenance costs for the building's common area reaching \$300, monthly condominium payments typically exceed

Despite the price, demand remains strong. As communities rush to convert, prices of existing "condos" are still higher. Some of the cure is as distasteful as the disease.

## U.S. aero engine makers bid for Air France order

BY TERRY DODSWORTH IN PARIS

A FIERCE struggle is developing within the nationalised French aerospace industry over the question of the engines to be used by Air France on the new range of A310 Airbus.

The argument has arisen after a well-publicised offer by Pratt and Whitney, the U.S. aero-engine manufacturer, to supply Air France with its JT9D-7R engines at what looks like bargain basement prices.

While Air France itself seems well-disposed towards the deal, the State-owned SNECMA engine manufacturing group and General Electric of the U.S. are anxious to keep their monopoly of the jointly developed CF6-80 engine, which has been fitted to almost all Airbus so far.

Pratt and Whitney's offer clearly results from the growing

success of the Airbus, which has helped General Electric, its large U.S. rival in the world aero-engine business, because of its design and development links with SNECMA.

In order to win a position on the French aircraft, Pratt and Whitney has offered:

1. To modernise free of charge its own engines on Air France's 17 Boeing 747s.
2. To switch its engine overhaul and service centre from Hamburg in West Germany to France.
3. To sub-contract up to 30 per cent of the value of all future sales of JT9D for Airbus worldwide.

The final choice for Air France will probably be heavily influenced by the Government,

which will have a delicate decision to make between the different national interests.

There are clear arguments in favour of selecting more than one supplier for the national airline, especially when SNECMA is so closely allied with an American company which now has a tight grasp, through this link, on French civil aviation.

On the other hand, SNECMA is running into a period of the export earnings through the General Electric connection, following the sudden success of the CFM-56 unit.

For Airbus Industrie, owned by Aerospatiale, the nationalised aerospace manufacturer, the choice is more academic. But it is pointed out that the company's sales are helped by having a variety of engines on offer.

## KWU keeps Iran options open

BY ROGER BOYES IN BONN

KRAFTWERK UNION has announced that it has formally terminated its contract to build two nuclear reactors for Iran at the Gulf port of Bushire, but the West German power engineering concern said it is "theoretically" prepared to negotiate a new contract over the suspended project.

This was disclosed yesterday by Herr Norbert Schmitt, head of KWU's Iranian operations. But clearly the chances of an imminent new agreement are extremely slim, following the formal termination of the contract.

The Iranian authorities have denounced the \$6.9bn Bushire project as uneconomical, and have said that the original contract, signed with the former Shah's officials, was over-priced and invalid. The KWU, meanwhile, is claiming DM 1bn for work completed last year as well as other outstanding costs.

The Iranian doubts led to the stopping of all construction work in January. KWU is flying

some 100 of its personnel back to West Germany today but is leaving a 20-man liaison bureau in Iran. Should the Iranians change their views on Bushire, the bureau could then play a role in new negotiations.

In the meantime it may advise on the care and maintenance of the power stations, which are about 80 per cent complete.

The maintenance—now completely in the hands of Iranian authorities—has been one of the major concerns of KWU in recent weeks. The West German company believes that a power plant so close to completion needs highly skilled technicians to look after it, otherwise it will deteriorate rapidly and make the resumption of work correspondingly difficult.

## Greek plant expansion

BY OUR ATHENS CORRESPONDENT

A CONSORTIUM consisting of Udeh of West Germany and the Greek companies of Archirodon and Elmec has been awarded a \$38m contract for the expansion of the installations of Phosphoric Fertilisers Industry plant in northern Greece.

The expansion will be largely financed by a DM 53m European loan granted to the Commercial Bank of Greece by Deutsche Bank and Bayerische Vereinsbank.

The loan will be repaid in 12 years at an interest rate based on the LIBOR.

Expansion of the plant will double annual production capacity to 700,000 tons and, at the same time, widen the range of fertilisers produced. The expansion is expected to be completed early in 1982, and should save Greece an estimated \$20m a year spent on imports of fertilisers.

## Tate and Lyle may back Fiji distillery

By Dai Hayward in Wellington

TATE AND LYLE, the sugar refining company, is reported to have offered to back a \$1.6m distillery in Fiji. Plans for a distillery to be based in Lautoka, the centre of Fiji's sugar cane industry, are now being considered.

Tate and Lyle already have a large stake in the Fiji sugar industry, importing 175,000 tonnes of sugar each year. Lord Jellicoe, the chairman of Tate and Lyle, told Fiji sugar growers the company would like to "widen and deepen" its involvement in the Fiji economy.

Two sites are being considered for the proposed distillery, and it is hoped it could be in operation, producing gin, vodka and rum, by August next year.

## India to modernise car industry with foreign help

BY R. C. MURTHY IN BOMBAY

THE INDIAN automobile industry has been given the go-ahead by the Government to modernise with the help of foreign know-how.

It is hoped foreign collaboration will achieve savings in fuel consumption.

The Government wants these cars, some of which were designed 20 years ago, to be replaced with light-weight, fuel-efficient vehicles.

There are three automobile companies in the field for foreign collaboration. Bombay-based Premier Automobiles is negotiating with Fiat of Italy and Peugeot of France for expertise to replace its Padmini. The Padmini was originally designed to Fiat 1100 specifications.

Meters (HIM) proposes to upgrade the engines of its trucks and cars with British help. Of the total Rs160m (\$8m) modernisation programme, Rs10m will be spent on HIM's truck project, Vauxhall will help upgrade the Hindustan (originally Bedford) trucks to enable them to lift a payload of 7.5 tonnes plus 25 per cent extra load permissible under local regulations.

MAN of West Germany is entering into technical and financial collaboration with Escorts of Delhi for modern diesel engine production.

ECORTEC-MA, a joint venture to set up for this purpose will make stationary and automotive diesel engines of 100-650 hp.

## Metin Munir reports on the pipeline built to symbolise friendship between Ankara and Baghdad

## Oil flows but future remains troubled

ONLY THE presence of the Mediterranean lends any charm to the oil discharge station that marks the terminus of the 590-mile Iraqi-Turkish crude oil pipeline.

In the arid heat the line-between sea and sky disappears, and tankers are only visible when they approach close to the loading jetty. There is not a tree in sight for trees are regarded as a fire hazard, and the pipeline's management is looking for sheep to crop the scant grass that remains—sheep do not smoke, but workers mowing the grass might.

But such problems are incidental to the overall work of Iraqi and Turkish technical staff based here, who are finally beginning to see the \$900m pipeline begin to carry something nearer its full annual capacity of 35m tonnes.

In 1978 it only carried 13.3m tonnes, but in the first six months of this year 14.6m tonnes were carried.

Built to symbolise the friendship between Ankara and Baghdad, the pipeline commenced operating in mid-1977, but it has still been a bone of contention in the region. There were immediate problems over the quantity of oil Turkey would be allowed to draw from it, and the prices that would be charged. It has also experienced at least one explosion, the result of an apparent sabotage attempt.

In Turkey's more affluent days when the pipeline was conceived there were plans to establish a joint Iraqi-Turkish refinery and petrochemical complex at the terminal in Dorytol. These have now been shelved, though Turkey is planning to build a 270-mile spur pipeline



from Dorytol to Kirikkale near Ankara.

The Romanians are building a refinery with an annual capacity of 5m tonnes at Kirikkale. However, even if the fast welding techniques used on the Iraqi-Turkish pipeline are applied, it is questionable whether the spur will be ready at the same time as the refinery—about two years. The tender documents are being prepared but will not be sent out until Ankara is sure it can find the foreign exchange necessary.

Officials at BOTAS, the subsidiary of the Turkish Petroleum Company (TPAO) which operates the pipeline, explain that several factors prevent the pipeline from attaining full capacity. The most important is power shortages, which sometimes occur despite the fact the Turkish Electricity Authority (TEK) will often deprive local communities of electricity in order to keep the pipeline supplied with power.

The automatic operating system has also had its failures, while problems have sometimes arisen over the Iraqis' marketing practices.

At present the Iraqis give Turkey monthly sales lists specifying the names of the vessels to be loaded. But before loading can take place the Iraqis must have the approval of Iraqi technicians stationed here. Until a few months ago Turkish ships also often left empty handed because of frequent changes in the monthly lists.

The tanker terminal can take ships of between 30,000 and 300,000 dwt. On one recent weekend a Turkish tanker was being loaded while another Turkish tanker and a Japanese and a Greek vessel were anchored offshore.

Under the agreement between the two countries Turkey receives a fee of U.S.\$8.9 cents per barrel of throughput and is hoping to make about \$55m this year from the pipeline. Iraq has also pledged to allow Turkey 10m tonnes of crude per year until the end of 1978, 12m tonnes until 1982 and 14m tonnes thereafter.

This year, however, Turkey is only expected to take 6.5m tonnes from the pipeline. Turkey's shortage of foreign exchange has meant that its debts to Iraq have built up to, at one point, \$330 million.

The problems of foreign exchange, have not only meant that there are now long queues for petrol and diesel fuel throughout the country, but also that Turkey is unable to meet some of its longer-term contracts. It has thus been frequently driven into buying on the spot market—meaning that such foreign exchange as there is does not go a long way.

There are still doubts about whether Iraq's rapprochement with Syria will affect the Iraqi-Turkish pipeline. Turkish officials say that Iraq is com-

mitted to paying fees for putting through 15m tonnes annually; they are confident that throughput will reach 30m tonnes this year.

However, there is the possibility that bringing the long-closed Iraqi-Syrian pipeline to the south fully on stream will cause Iraq to send less of its oil through the more northern Turkish route to the Mediterranean.

The low level of tanker rates means that there is less to be gained from piping rather than shipping oil to the Mediterranean than seemed likely when the pipeline was planned. Also the Iraqis have lagged in making their payments, while the Iraqis, for political reasons, may wish to use the pipeline through Syria as fully as possible.

But the Iraqis are known to want to keep their options open, particularly in view of the longer-term uncertainties surrounding the Gulf. Turkish officials thus feel their confidence that the pipeline will be used is justified—and that they will remain happy enough not to worry too much about the wide aspects of Dorytol.

## Leading indicators fall 0.1%

BY JUREK MARTIN

THE U.S. leading economic indicators, which are designed to point to future trends in the economy, fell by a slight 0.1 per cent last month, according to preliminary estimates by the Commerce Department.

This follows a modest 0.3 per cent advance in the index in May and the sharp 2.1 per cent drop in April. It means that that measurement now stands at 1.1 per cent below the level of June last year—evidence of the downturn in economic activity.

A certain amount of statistical casuistry is involved in interpreting the index. Basically, if it moves up or down for three months in a row, it is supposed to portend a shift in economic fortunes. This has not been an infallible guide, but is considered a useful rule of thumb.

So far this year, the index has declined in three of the six months, but not consecutively.

On the other hand, measured on a quarterly basis, the index has now fallen for two quarters in a row—by 0.2 per cent in the first three months and by 1.1 per cent in the April-June period. The last time this happened was in the last quarter of 1974 and the first quarter of 1975, when the economy was indeed moving into a severe recession.

It is, of course, widely believed that the U.S. is already in a recession, given the 3 per cent plus decline in gross national product in the second quarter of this year. However, Mr. Paul Volcker, chairman-designate of the Federal Reserve Board, told Congress only on Monday that he did not necessarily concur with the prevailing view that a recession was already under way.

Mr. Volcker's purpose was clearly to reinforce the image he already possesses as an apostle of monetary discipline and as a consequently staunch fighter against inflation. He warned that interest rates might have to rise further as part of an even tighter monetary policy if inflation were to be reined in.

But his assertions clearly point up a potential conflict between the economically and politically desirable. If the recession were to turn out to be deeper than currently feared by the Administration, the President may feel impelled by political and social considerations to move to stimulate the economy towards the end of the year—perhaps at a heavy cost to the fight against inflation.

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## Police grenade kills Brazil striker

BY DIANA SMITH IN RIO DE JANEIRO

A STRIKING building worker was killed by a police grenade, and several dozen workers, firemen and policemen injured in the Brazilian city of Belo Horizonte, capital of Minas Gerais state. A fireman was also reported killed.

After negotiations for wage increases dragged on, 15,000 of the union's 80,000 members called a strike on Sunday night, and a rally on Monday morning. Firemen were called to extinguish a blaze in a taxi, apparently turned over and set on fire by strikers and violence

seek compensation for the death and injuries of its members.

Strikes by industrial or white-collar workers have been common since President Figueiredo took office in March. Generally, they have been peaceful, although clashes occurred in Sao Paulo state. The Belo Horizonte violence is the first to involve loss of life.

The new Government, bent on presenting a more humane face than its predecessors, and on gradually softening Brazil's draconian labour laws, may have trouble keeping the temperate cool in industrial disputes until the police change their attitude.

Union leaders have publicly condemned firemen and police for their handling of the incidents, but have also admitted that agitators appear to have infiltrated the strikers.

Some of the crowd bent on a rampage, invading shops and offices. Yesterday Belo Horizonte was reported to be reasonably calm.

President Joao Figueiredo issued a statement lamenting the loss of a life and injuries to workers and policemen. An inquiry is to be held and the building workers' union will

## Labour leaders' boost for Carter

BY JOHN WYLES IN NEW YORK

PRESIDENT JIMMY CARTER has received a surprisingly early expression of support for his re-election from leaders of half a dozen large unions who admit they are rallying round because the President is in trouble and needs their help.

Although it is quite usual for individual unions to launch efforts to secure the nomination and election of chosen presidential candidates, they have never done so in the past so far in advance of the primaries and no-voting conventions.

The six union leaders who have formed a Labour for Carter / Mondale Committee account for about 3m or 15 per cent of all union members in the country. The American Federation of Labour-Congress of Industrial Organizations (AFL-CIO) claimed yesterday that the White House staff was

obviously responsible for the committee's formation. It was pointed out that some of the union leaders had good reasons for supporting Mr. Carter.

Mr. Paul Hall, for example, who is co-founder of the committee leads the Seafarers Union, which has a keen interest in a new federal maritime policy which the Administration is still supposed to be framing.

Similarly, Mr. Sol Chaikin, of the International Ladies Garment Workers' Union and Mr. Murray Finley of the Clothing and Textile Workers are interested in the Administration's restrictive stance on textile imports while Mr. Jack Otero of the Railway and Airline Clerks is lobbying hard against possible cuts in Amtrak, the Government subsidised railway.

Co-founder with Mr. Hall is Mr. William Wynn, president of the largest AFL-CIO affiliate, the 1.3m-member United Food and Commercial Workers. In discussing his initiative, Mr. Wynn says that he and his colleagues accept Senator Edward Kennedy's statements that he is not a candidate.

The union leaders will not be drawn on whether they would prefer Senator Kennedy, as some of their AFL-CIO colleagues have made clear. Left-wingers such as Mr. William Wimpfinger of the machinists are actively seeking a Kennedy candidacy and are still privately optimistic that it is feasible.

Commenting on the surprisingly early birth of the committee, Mr. Hall said: "This President needs all the help he can get."



UK NEWS

Nigeria may sell to Australia

# Staff cuts may hit savings, bonds

By SAMONN FINGLETON

ONE OF the main services of the Department of National Savings may have to be phased out, the Government goes ahead with a proposal to cut staff spending by 10 per cent, it was stated last night.

The Department said that Mr. Nigel Lawson, Financial Secretary to the Treasury, had explained the implications of the proposed cuts to staff representatives last week. But no decision on the cuts will be made until the autumn.

The statement followed reports yesterday that the Government's successful Premium Bonds campaign could be hit by Government efforts to reduce Civil Service manning levels.

Yesterday's statement confirmed that Mr. Lawson had mentioned Premium Bonds as one of three major areas which might be affected.

The other areas were the ordinary account at the National Savings Bank and National Savings Certificates.

Mr. Lawson had said that only one of these areas would be affected if the Government were to achieve a cut of 10 per cent in staff spending by April, 1982. More services might be affected if larger cuts were implemented.

The Department said: "The word 'affected' was used since it was envisaged that should it be decided that any Department of National Savings services should contribute to the overall reduction."

This would probably be done by discontinuing the intake of new deposits on purchases, but existing investments would continue to be serviced.

# Bank sets new rules for money dealers

By JAMES BARTHOLOMEW

THE BANK of England issued a code of conduct for principals and brokers in the £300m sterling money market yesterday, and a Sterling Brokers Association has been formed along the lines of the existing Foreign Exchange and Currency Deposit Brokers Association.

The code will apply to institutions such as building societies, local authorities and industrial companies which have not until now been subject to rules written by the Bank of England. The market, also includes banks, brokers, pension funds and insurance companies.

There is at present £400 in the Certificate of Deposit market, £150m in the interbank market and out of the £350m of local authority debt, about £100m is estimated to have been funded through the money market. There are also smaller markets such as that between industrial companies.

The Bank's code is based on existing best practice and has been written after consultation with practitioners.

The code rules that:

- The exchange of confidential information about third parties is forbidden.
- The name of a borrower shall be disclosed by a broker only to a lender who seriously intends to deal.
- A principal shall not apply unfair pressure on a broker to pass on information improperly.
- Brokers must not give gifts to principals, unless the heads of the principals' money market operation know about the gifts.
- Principals must exercise full control over their dealers.
- Principals must not use brokers to find out who is in the market in order to deal with them directly.

Enforcement of the code is in the Bank's hands but the sanctions open to it are not clear.

Disputes in the money market can now be referred for arbitration to a Joint Standing Committee on which principals and brokers will be represented. The committee will also advise the Bank on future amendments to the code.

The new regulatory systems which have emerged in both the sterling and foreign exchange markets is a half-way house between the self regulation which the Bank has long favoured and the governmental control common on the Continent.

# Mirror Group chairman to retire at end of year

By JOHN LLOYD

MR. PERCY ROBERTS, 59, chairman and chief executive of Mirror Group Newspapers, is to retire at the end of the year.

Reed International, the group's parent company, has also announced major changes in its management structure.

The changes follow an announcement in May that Mirror Newspapers had abandoned an attempt to introduce computer-aided design, and came at a time when the Daily Mirror's circulation continues to fall.

Mr. L. A. Carpenter, chairman and chief executive of Reed's International Publishing Corporation, will take over the additional responsibility for the Mirror group from today.

Mr. Tony Miles, editorial director of the Mirror group, becomes chairman, and Mr. Douglas Long, deputy chief executive, becomes chief executive. Both will report to Mr. Carpenter.

The deputy chairman of Reed International, Mr. G. S. Witherington, takes over direct responsibilities for Reed Building and Wall Paper Manufacturers from Sir Alex Jarraff, Reed's chairman.

The company's paper and packaging interests are brought together under Mr. D. T. Wilkins, Reed Group chairman, who now also takes on Reed Paper, the company's Canadian subsidiary.

# Record sales for main London auction houses

THE FOUR main London auction houses had record sales for the closing season, with combined net figures of £330.6m against £282.9m in 1977-78. This was a rise of 18.8 per cent.

Sotheby's had a total of £181.5m, compared with the previous £161m, an increase of 12.7 per cent. Every saleroom recorded higher figures. Last year's international total was

# SALEROOM

By PAMELA JUDGE

based on exchange rates taken at August 31, while this year's were struck on July 30. Without this difference the total sales would have been more than £197m, a gain of 22 per cent. Sales in North America rose to \$147m from \$112m.

For the first time, Christie's topped £100m, with £110m sales against £99.1m last year. This was an increase of 24 per cent. On a similar exchange rate calculation to Sotheby's, Christie's would show an extra £2.2m, or a rise of 28 per cent. Overseas sales increased in number to 229 against 194, and in value to £42.6m against £32.1m.

At Phillips, the increase was 26 per cent—sales of slightly more than £30m against last year's £23.5m. Phillips was the most aggressive advertiser during the year. It took virtually all the Bond Street Tube station sites and ran the first television

# More fraud officers considered

By John Elliott, Industrial Editor

THE DEPARTMENT of Employment is considering increasing the number of fraud officers it employs in an attempt to cut down on the payment of unemployment benefit to people who have jobs.

This emerged yesterday after Mr. David Mitchell, a junior Industry Department Minister, told the Confederation of British Industry's small firms council that the Government was looking into what could be done in the case of people who were moonlighting and drawing unemployment pay at the same time.

At present the Employment Department employs 300 fraud officers. The cost of an increase would be covered out of £7m a year savings that the Department will make from September when it starts paying unemployment benefit fortnightly instead of weekly.

Eventually the Department hopes to more than cover the cost of the fraud officers by cutting down on the £1.5bn a year it spends on unemployment pay.

The Department is also aiming to curb abuses of unemployment and other benefits.

The main abuse occurs when people refuse potentially suitable jobs offered by employment exchanges and so receive unemployment pay for longer than might be necessary.

# Trade report censures four

By JOHN MOORE

DEPARTMENT of Trade inspectors inquiring into the ownership and affairs of Ashbourne Investments, a small quoted company with financial and industrial interests, have censured the conduct of four individuals.

In addition, the investigation has disclosed a number of areas for which the present law and practice provide inadequate protection against abuse.

The details are in a Department of Trade report published yesterday after an investigation which lasted nearly four years.

The inspectors, led by Mr. Robin Auld, QC, say they are concerned about the lack of adequate safeguards for unsecured loan stockholders and the absence of clear standards in relation to "window-dressing" of accounts.

The inspectors regarded as particularly serious the attitude of Mr. Simon Raynaud, an executive director of Ashbourne, to the breach of the loan stock trust deed of the company in the six months before a consortium gained control of Ashbourne.

They regard as serious the abuse by Mr. Stephen Barry, Mr. Stephen Ross and Mr. Lionel Casper of their management control of Ashbourne in relation to a share deal involving shares of Armour Trust.

They also regard as serious the "window dressing" of the audited accounts in 1974 of Ashbourne and of E. S. Schwab, a

bank acquired by Ashbourne in 1987. Mr. Stephen Barry is held primarily responsible for the "window dressing", which he used to conceal the breach of the loan stock trust deed and the extent of Ashbourne's reliance on support from Schwab.

The report covers the period between 1973 and 1975 and the events surrounding a proposed bid by a consortium headed by Crest International Securities, a quoted investment company, and Corporate Guarantee Trust, a quoted investment trust.

The founders of the consortium were Mr. Lionel Casper, the chairman of Crest, Mr. Stephen Barry, the chairman of Corporate, and Mr. Bernard Glazer, a rancher and property owner in South Africa.

Their intention was to gain management control of Ashbourne, merge it with their own companies and set out on a career of "company conquest."

By the end of November 1973 the consortium had acquired 28.26 per cent of the issued share capital of Ashbourne. It proposed a bid and instructed merchant bank William Brandt's a member of the Grindlays Banking group, to act for it.

By then Mr. Casper and Mr. Barry had already stretched their respective companies' finances to obtain the stake. They sought board representation but it was denied.

In December, directors of Ashbourne sold a further 19.89 per cent of the company shares bringing the consortium's total

holding to 48.15 per cent of Ashbourne. It then became bound under the City Code on Takeovers and Mergers to make within reasonable time an offer to buy the remaining shares in the company.

Ashbourne sold the shares to the consortium after an assurance given by William Brandt's that the consortium had sufficient funds available to meet its obligations.

In anticipation of the bid, four representatives of the consortium — Mr. Casper, Mr. Ross, Mr. Barry, and Mr. Brian Simmons — were appointed to the Ashbourne board.

No bid materialised. In their observations on the deal the inspectors say that one of the most important objects of the City Code is to ensure that all shareholders of a company about to be taken over receive equal treatment from the bidder. In this instance, all the shareholders of Ashbourne did not receive equal treatment.

The takeover panel was unable to enforce the City Code, first, because the consortium directors resorted to litigation to enable the consortium to evade its obligation to bid, and in the end, because the financial arrangements for the announced bid failed.

The inspectors observe that Mr. Philip Ralph, then a director and head of the corporate finance side of William Brandt's, was at fault in failing to construct a clear and comprehensive underwriting agree-

ment for the bid at the outset.

The inspectors conclude that the consortium directors took steps to improve the liquidity of the Ashbourne group, principally by the realisation of some assets and by obtaining repayment of certain loans made by E. S. Schwab.

"However, their brief stewardship of the company and subsequent control were highly damaging to it, notably by the costly disputes in which they involved the company in trying to retain control of it without complying with the obligation to bid for it."

They praised Mr. Raynaud and the company's fellow non-consortium directors for undertaking the management of the company affairs under such trying conditions.

\* Ashbourne Investments Limited, Department of Trade Report, HMSO, £3.75.

# Store chain appoints executive

By Christine Mott

MR. GEORGE CANNON has been appointed chief executive of the wholesale division of International Stores, a subsidiary of BAT Industries. Two months ago he resigned from the Board of Pich Lovell after lengthy wrangles about major policy decisions.

He will resume responsibility for Alliance Wholesale Grocers, which came under his control in the late 1960s when he was chairman of the wholesale grocery arm of Associated British Foods. Last year K. J. J. and Tonga, International's wholesale subsidiary, bought the Alliance chain from Associated.

Mr. Cannon became chairman of K. J. J. He also takes a seat on the main International board, which has been under a restructuring since last year when the company announced a turnaround from a trading profit of £5.8m to a loss of £5.8m.

The main losses have been on the retailing side and the company believes that Mr. Cannon's previous experience with Key Markets and Fine Fare will be useful.

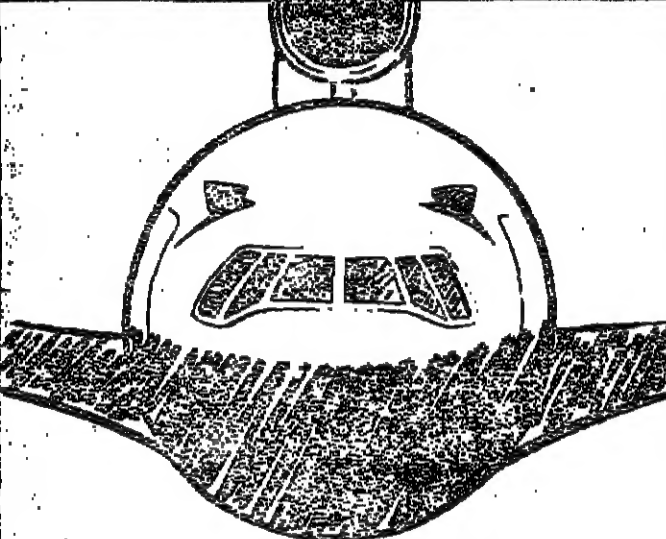
Mr. Cannon's main areas of responsibility have always been wholesale buying and distribution, and here too International's performance has recently been poor.

# New London courts open

TWO NEW courts have opened in Croydon to help clear the backlog of Crown Court cases in the London area.

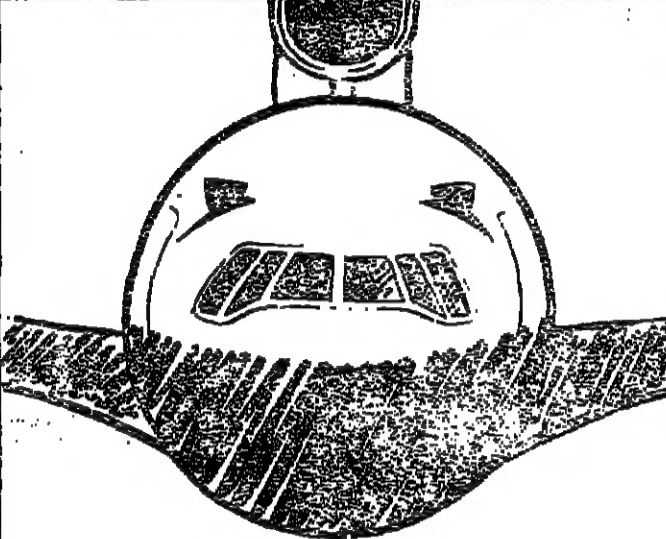
A further 23 temporary courtrooms are scheduled to open before 1982 on the South Eastern circuit, where defendants in custody wait an average of more than 18 weeks for trial. Those on bail wait more than 31 weeks.

## Stars on



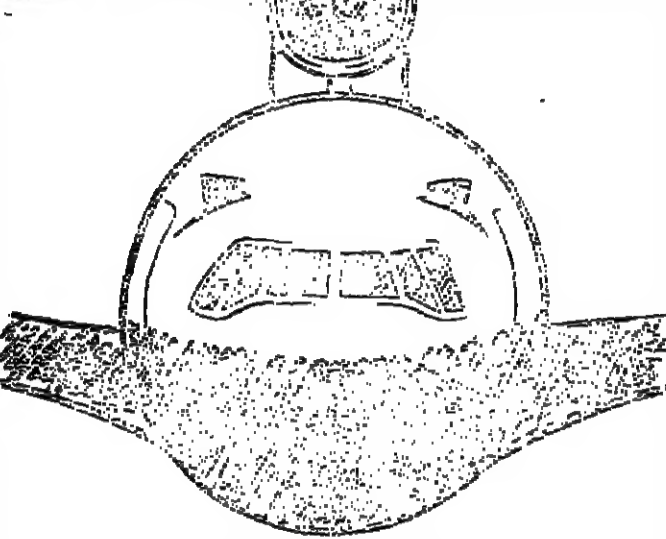
LONDON-KUWAIT, ABU DHABI, JEDDAH, DHAHRAN, DUBAI.

## Sunday, Monday, Tuesday



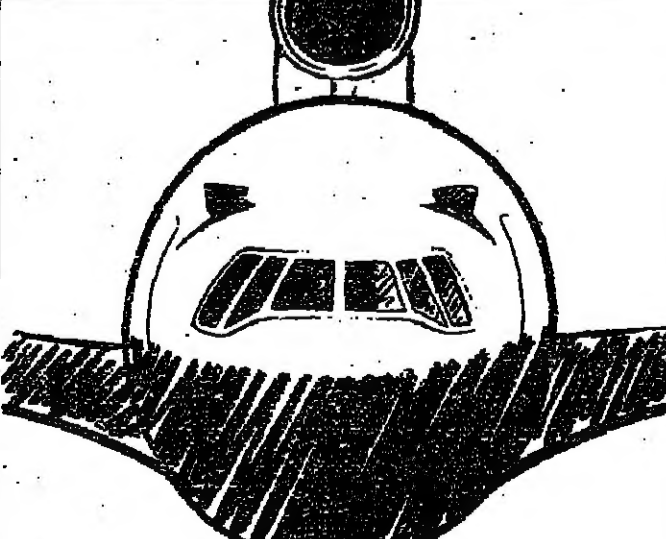
LONDON-KUWAIT, ABU DHABI, DUBAI, JEDDAH, DHAHRAN.

## Wednesday, Thursday, Friday



LONDON-KUWAIT, ABU DHABI, JEDDAH, DHAHRAN, DUBAI.

## Saturday



LONDON-KUWAIT, ABU DHABI, DUBAI, JEDDAH, DHAHRAN.

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S. G. WARBURG & CO. LTD., announce that Bonds for the amount of £460,000 have been drawn in the presence of a Notary Public, for the redemption instalment due 1st September, 1979.

The numbers of the Bonds so drawn are as follows:—

£500 Bonds									
12013	12047	12072	12093	12099	12120	12136	12143	12149	12156
12163	12170	12184	12188	12193	12205	12216	12232	12239	12245
12253	12262	12265	12301	12307	12338	12345	12352	12360	12370
12376	12398	12445	12453	12458	12468	12515	12520	12527	12539
12547	12553	12561	12578	12603	12608	12619	12624	12730	12780
12786	12776	12785	12815	12830	12839	12867	12901	12909	12959
12964	12967	12968	12968	12998	13003	13014	13029	13048	13059
13066	13075	13084	13102	13110	13116	13123	13133	13174	13180
13187	13196	13204	13212	13227	13237	13242	13268	13285	13293
13301	13308	13320	13327	13339	13362	13392	13404	13417	13428
13448	13465	13471	13477	13484	13491	13496	13515	13522	13542
13549	13579	13588	13594	13605	13614	13621	13630	13637	13643
13649	13670	13680	13687	13735	13741	13771	13777	13801	13819
13826	13837	13844	13866	13861	13878	13895	13910	13915	13922
13930	13940	13947	13995	14002	14010	14022	14028	14035	14041
14047	14054	14060	14067	14072	14085	14092	14110	14120	14188
14166	14202	14249	14264	14267	14281	14287	14311	14322	14338
14345	14354	14360	14366	14374	14379	14398	14417	14430	14440
14467	14517	14534	14568	14574	14600	14605	14612	14619	14624
14634	14646	14657	14663	14674	14686	14725	14734	14763	14785
14795	14805	14811	14818	14821	14875	14876	14897	14927	14934
14940	14953	14963	15014	15021	15027	15040	15049	15049	15068
15077	15119	15138	15149	15195	15202	15225	15232	15239	15250
15255	15263	15449	15457	15480	15489	15504	15513	15520	15526
15565	15572	15578	15588	15592	15598	15606	15611	15626	15631
15638	15642	15648	15658	15662	15669	15675	15681	15682	15683
15714	15728	15743	15752	15758	15764	15771	15783	15785	15793
15834	15840	15875	15883	15890	15895	15904	15951	15956	15966
15979	15996	16011	16029	16046	16056	16074	16082	16091	16103
16108	16114	16121	16126	16144	16149	16156	16163	16176	16176
16183	16187	16192	16212	16218	16226	16231	16239	16250	16258
16296	16316	16335	16342	16360	16367	16373	16379	16392	16392
16399	16406	16426	16439	16447	16453	16462	16503	16510	16517
16531	16538	16560	16569	16574	16581	16587	16614	16621	16628
16634	16657	16665	16670	16683	16694	16716	16723	16743	16750
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16892	16893	16898	16945	16951	16958	16964	16984	16994	16994
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17355	17361	17368	17375	17382	17392	17410	17425	17432	17471
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18936	18942	18954	18959	18971	18982	18988	19006	19018	19024
19031	19038	19060	19066	19077	19084	19093	19100	19109	19117
19129	19137	19143	19149	19156	19191	19200	19206	19213	19223
19311	19313	19319	19325	19331	19337	19343	19349	19375	19375
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19523	19529	19536	19542	19548	19555	19562	19567	19573	19583
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21297	21303	21310	21316	21324	21329	21343	21349	21357	21367
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21554	21560	21572	21579	21585	21592				

£100 Bonds									
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371	383	393	402	412	424	469	479	489	499
489	500	509	517	528	537	546	556	565	576
584	594	607	622	631	642	651	673	683	695
710	733	743	752	763	774	791	801	811	821
834	846	857	868	879	890	901	911	921	931
910	926	934	946	956	963	973	987	996	1007
1018	1032	1046	1054	1064	1073	1082	1092	1102	1111
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2834	2854	2863	2872	2881	2891	2900	2914	2923	2932
2943	2951	2960	2975	2983	2999	3008	3017	3032	3042
3058	3073	3084	3095	3103	3116	3126	3136	3144	3163
3172	3183	3202	3212	3223	3234	3247	3267	3277	3301
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3445	3457	3462	3493	3508	3527	3536	3579	3593	3604
3623	3639	3647	3668	3667	3675	3690	3702	3712	3721
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3943	3973	3982	3992	4002	4012	4032	4042	4052	4062
4072	4086	4096	4110	4115	4130	4340	4349	4360	4369
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4483	4484	4504	4513	4524	4533	4543	4552	4671	4681
4694	4810	4820	4632	4640	4650	4660	4671	4682	4715
4726	4736	4746	4756	4766	4776	4786	4796	4806	4816
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5600	5616	5627	5637	5645	5659	5672	5688	5697	5710
5726	5746	5757	5767	5787	5798	5807	5817	5827	5837
5846	5862	5886	5901	5913	5927	5947	5959	5970	5981
5990	6000	6012	6027	6038	6047	6056	6071	6081	6093
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7518	7534	7548	7558	7571	7588	7599	7611	7623	7640
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9988	9999	10010	10075	10102	10129	10143	10163	10162	10172
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10764	10784	10804	10812	10826	10832	10851	10861	10861	10869
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11165	11175	11185	11192	11201	11211	11221	11231	11241	11251
11259	11268	11278	11286	11297	11307	11316	11325	11335	11345
11353	11363	11373	11383	11392	11401	11412	11424	11435	11446
11461	11473	11484	11493	11504	11513	11522	11533	11541	11556
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11675	11685	11697	11728	11738	11748	11759	11768	11777	11787
11796	11807	11815	11826	11851	11859	11869	11872	11881	11899



# Is this the right way to raise capital funds?

Some people will go to almost any lengths to try and raise capital funds.

But, when all's said and done, sheer determination will never be enough, on its own. What's needed is a sound reputation. And that reputation has to be established before you can expect to raise any kind of capital.

## Advertising builds reputations

Corporate advertising is one way of achieving that objective.

Intelligently used as a corporate communications vehicle, effective corporate advertising not only educates and informs, it also helps to develop – and confirm – ideas and attitudes among widely differing groups of people.

Far from hindering your company's relations with the financial community, it can only improve them. Now and in the future.

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## A guide to successful work

"Corporate Advertising: Menace, myth or magic formula?" not only discusses the importance of corporate advertising, it tells you how to go about it.

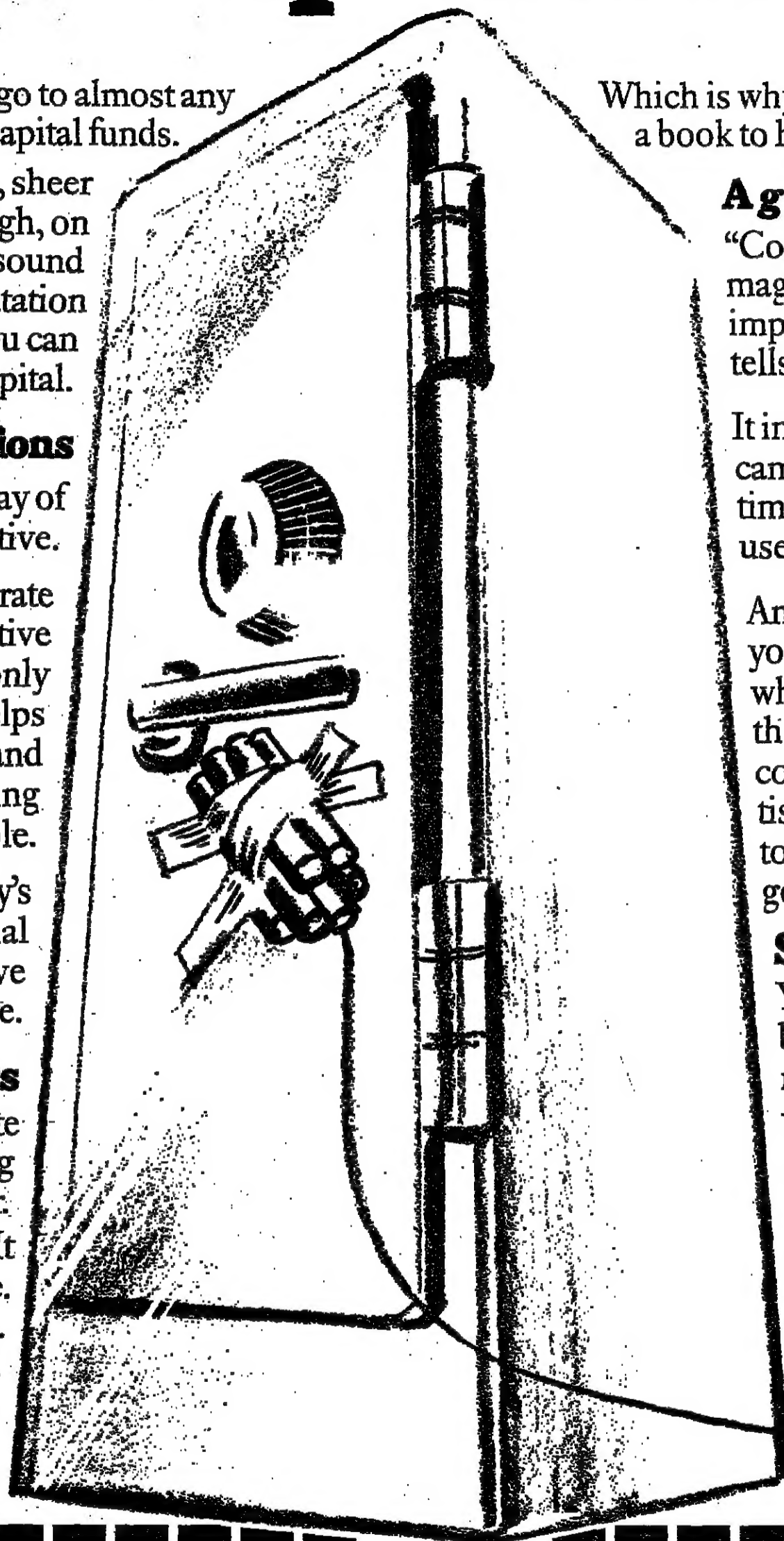
It includes examples of successful campaigns. It talks about strategy and timing. It discusses the media you can use to reach specific audiences.

And, most helpful of all, it provides you with a detailed checklist from which you can begin to identify all those occasions when your company could benefit from a corporate advertising campaign; such as when you want to raise investment capital, or seek the goodwill of the financial world.

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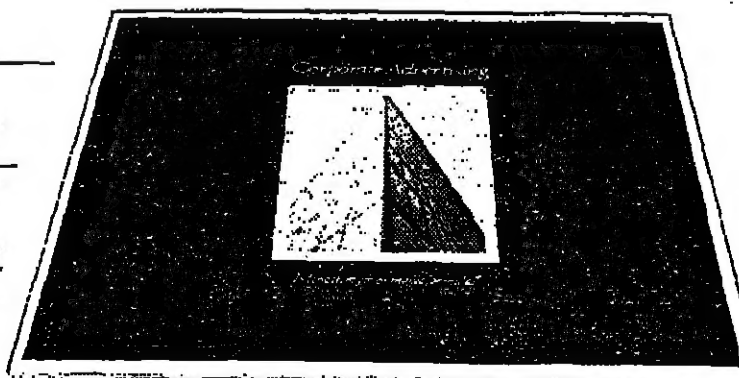
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NAME \_\_\_\_\_ POSITION \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

NATURE OF BUSINESS \_\_\_\_\_





## UK NEWS

# Civil Aviation Authority set to raise its fees

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

FEES CHARGED by the Civil Aviation Authority for many of its services to the UK aviation community will have to rise this autumn to meet soaring costs.

But, even so, the authority is likely to incur a bigger loss on its operations for the current financial year than the deficit of £14.5m in 1978-79.

Mr. Nigel Foulkes, chairman of the authority, said in London yesterday that, apart from inflation, one of the main reasons for a deficit was the recent Civil Service pay award.

It would add some £20m to the authority's costs this year, and the authority had no control over it. It was not allowed to negotiate its own pay structure with its staff, and was obliged to accept the settlement agreed between the Civil Service unions and Whitehall.

"I do not see how we can absorb all these extra costs by increased efficiency in the course of this year," says Mr. Foulkes in the latest annual report from the authority. "And I fear we shall have to raise some of our charges on the 'controllable' operations in the autumn."

The "controllable" operations are those covering air traffic services for the North Atlantic area, and for airports in the UK, together with safety activities, route licensing and fees for airworthiness and other activities.

The "uncontrollable" operations—where the authority has no say in the charges applied, since these are the prerogative of governments—include traffic control services in the UK air space, and contributions to European air traffic control (Eurocontrol), together with the costs of running the airfields in the Highlands and Islands of Scotland.

The authority's annual report for 1978-79 shows that on its controllable operations, the authority made a profit of £1.9m. On its uncontrollable operations, the authority incurred a loss of £16.8m—giving a net loss of £14.9m.

This compared with a loss of £15.8m in 1977-78, a £44m loss in 1976-77, and a £53.3m loss in 1975-76.

This progressively declining deficit, in the authority's view, clearly indicates that it is "managing its resources effectively and can stand comparison with many organisations of comparable size in the public and private sectors."

## Noise controls tightened

BY MICHAEL DONNE

TIGHTER CONTROLS on aircraft noise will result from a new Government order which becomes effective today.

Called the Air Navigation (Noise Certification) Order, 1979, it makes it possible for the Government to enforce noise controls on propeller-driven aircraft, which have hitherto been outside the scope of such controls.

It also allows the Government to extend the noise controls to small business and executive jet aircraft.

Looking further ahead, the new order will also allow the Government to prohibit, from January 1, 1986, any aircraft on the UK register which has not by that time been given a "noise certificate," declaring that it meets the stringent noise requirements for take-off and landing.

To effect, this part of the new order will mean that many of today's ageing and noisy Boeing 707s, VC-10s, Trident and One-Eleven jets will have to be phased out of service by that date.

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This is partly because of various distortions.

The firm concludes that the fall in short-term interest may be later and slower than generally expected.

In a new review of the impact of oil and financial markets, Wood Mackenzie, stockbrokers, says that increase in the value of the pound, and the consequent rise in the value of foreign currencies, may cause some problems.

A large part of the increase in the pound is likely to be held at first in short-term financial markets. This implies an increased reliance on the international banking system in recent months to the less developed countries.

"At present, lending remains very tight, smooth recycling of funds in the money market as the less developed countries try to finance increased exports to the UK has been involved if there is to be an adequately rewarded for the high unemployment."

"Another point may be the weakness of the value of the pound, which is already overvalued on a fundamental view, may be reached even higher, thus increasing its vulnerability to a sharp and painful downward correction if sentiment changes."

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Mr. Jenkin's solution to the problem will be made known today. Whatever course he adopts the issue is unlikely to be forgotten as quickly as he would have wished it to be.

## NEWS ANALYSIS—HEALTH CUTS RESISTANCE

### The dilemma facing Mr. Jenkin

BY PAUL TAYLOR

THE DECISION of the Lambeth, Southwark and Lewisham Area Health Authority to flout Government requests to cut spending has brought the cash problems confronting health authorities—and the dilemma facing the Government—into sharp focus.

The immediate cash crisis facing some health authorities in England and Wales—and particularly those in London and the South East—reflects the impact of a wide range of factors.

These include the higher-than-expected level of pay and price inflation set against the background of a Government determined to contain public expenditure, the increase in the VAT rate and, perhaps most importantly, changes in National Health Service fund allocations between the 14 regional health authorities.

The announcement yesterday that Mr. Patrick Jenkin, Social Services Secretary, had deferred announcement of his decision on how to deal with the "rebel" area health authority pending further legal considerations serves to highlight the nature of the Government's dilemma. For whatever action Mr. Jenkin decides on will be keenly watched by other health authorities.

The immediate cause of the crisis facing Lambeth, Southwark and Lewisham Area Health Authority is Mr. Jenkin's statement in the Commons ten days ago giving the Government's attitude to health service expenditure in the current financial year.

He made it clear that the Government was not willing to increase the cash limits on the

£4.28bn allocated to the 14 regional health authorities for 1979-80, except to cover agreed pay awards.

Under present arrangements, Government funds to pay for the National Health Service are allocated on a yearly basis to the 14 regions which in turn determine specific allocations to the 90 area health authorities.

At the area level, the management of NHS funds is the responsibility of the area health authority members whose chairmen are appointed by the Secretary of State. These area health authorities have widely interpreted Mr. Jenkin's statement as a move to impose spending cuts "by the back door."

Mr. Jenkin himself described his statement as "a spending squeeze" which would result in a shortfall of between £90m and £100m in National Health Service funds this year.

#### Allocations

Of this £90m to £100m, Mr. Jenkin said between £35m and £40m was attributable to the increase in VAT but the remainder was due to other inflation—the roots of which he laid firmly at the door of the previous Labour Administration.

The reason the four regions—and therefore the area health authorities—in London and the South-East have been particularly hard hit is because they have already been forced to make savings due to changes in the allocation of resources between the 14 NHS regions.

Funds are distributed between the regions based on a formula determined by the

Government's Resource Allocation Working Party, one of the key elements of which is population. Although designed to distribute resources more fairly, the formula's impact on the London and South-East regions has recently been particularly severe.

While the operation of the Resource Allocation Working Party formula was broadly endorsed by the Royal Commission on the Health Service's recent report, it also pinpointed the problem facing the four Thames regions which are responsible for many of the postgraduate and teaching hospitals.

The Commission accordingly recommended that an independent inquiry should be set up to study the particular problems facing the London health authorities.

This suggestion may be one which appeals to the Secretary of State as a partial way out of the Lambeth, Southwark and Lewisham Area Health Authority problem since the area includes three teaching hospitals, Guy's, King's College, and St. Thomas's.

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## Interest rates caution continues

By Peter Riddell, Economics Correspondent

THE INCREASINGLY cautious City view about the short-term prospects for interest rates is further supported today by a batch of stockbrokers' reviews.

Pannum Gordon and Co doubts that bank lending and the money supply will respond quickly to government measures announced so far, and suspects that further action may be invoked. Specifically, the short-term interest rate prospect is not encouraging.

The review says "the question of whether present monetary policy is too relaxed (that is ineffective) or merely delayed in its impact may nonetheless be resolved by the authorities acting to pre-empt any doubts."

These comments highlight the change in analysts' views in the last month. Previously there had been hopes that bank lending would quickly become less buoyant so that short-term interest rates could soon decline. But now there is much greater caution—highlighted by the warning on Monday in Barclays Bank financial review about a possible rise in short-term rates.

Sheppard and Chase, another firm of stockbrokers, says that it will not be until the November banking figures are published—just before Christmas—before there are "the first reasonably reliable indications of a fall in bank lending even if, as is likely, one has been under way by then for some time."

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## General Motors UK profits fall

By Kenneth Gooding, Motor Industry Correspondent

GENERAL MOTORS of the U.S. has injected a further £10m into its UK subsidiary by way of low-interest, long-term loans.

The annual report of General Motors of the UK also shows that taxable profits fell from just over £10m to £6.64m in 1978.

Turnover just kept pace with inflation and rose 13 per cent from £171.5m to £194.4m.

GM Ltd. is responsible for the AC Delco components business; the Detroit Diesel Allison operation, which assembles diesel engines and adapts American-built Allison transmissions for European use; Opel cars in the UK and owns GM Ireland.

The Frigidaire refrigeration operations have been phased out, so turnover from this business in 1978 dropped from £10.5m to £1.7m.

GM Ltd. components were hit by the nine-week Ford strike last autumn.

In spite of this AC Delco turnover improved by 13 per cent from £90.4m to £106.4m last year. The Opel Marketing Unit rose 38 per cent from £40.9m to £56.4m. Detroit Diesel Allison sales fell from £24.3m to £23.3m.

GM in the U.S. collected a \$3.77m interim dividend (£1.825m in 1977) but there was no final dividend payment. The two loans from GM in the U.S. involved \$7m at an interest rate of 7 per cent and \$3m at 6 per cent, both repayable in March 1983.

As a result GM Ltd. was able to reduce bank overdrafts from £22.4m to £10.7m.

BM Ltd.'s exports last year rose from £40.3m to £44.5m, and the average number of employees was slightly down from 8,807 to 8,488.

Profits retained for the year dropped from £9.5m to £3.24m. This means that the profit retained in the business rose from £14.6m to £14.9m. The end-1978 balance sheet showed net assets at £31.3m (£18.54m).

## CBI SURVEY OF INDUSTRIAL TRENDS

# Export optimism falls sharply

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

OPTIMISM ABOUT the general business situation in manufacturing industry has "deteriorated to a significant extent" according to the Confederation of British Industry's quarterly industrial trends survey published yesterday.

In particular, optimism about export prospects over the coming year has "weakened sharply," and a lack of price competitiveness is making the problem more serious.

Investment intentions are weakening, and there are also indications of a drop in the numbers employed. Increases in unit costs and in average domestic selling prices have also become more widespread.

These are the main points in the survey which was conducted among 1,891 manufacturing companies employing 3m people during the first half of July, when industrialists had had time to absorb the implications of both the Budget and the OPEC oil price rises.

"While there has been an improvement in activity levels with capacity recovering to its highest level for over five years, the prospects for the coming months for orders and output are weak," says the survey.

#### Implications

"This may, in part, reflect the temporary impact to activity, arising from the recovery after the dislocation earlier this year coming to an end."

Summarising the implications of the survey, the CBI says: "Over the next few months the support to demand due to the recovery from the strikes will come to an end, while we expect consumers' expenditure and other components of domestic demand to fall back from their levels of the second quarter. As a result of this, taken together with poor export prospects, manufacturers now expect a weakening in levels of activity."

Turning to the implications for profitability, the CBI says: "In the coming months already weak industrial profitability will in addition be affected in various ways by the rise in sterling and the increases in the world prices of primary products that have taken place recently."

A below average number of companies believe they will be able to raise their export prices in the next four months. This means, says the CBI, that "the outlook for company profits, particularly in exporting industries, is therefore very dangerous."

Analysis of the detailed returns in the survey show that 12 per cent of the companies completing the CBI questionnaire are more optimistic about the general business situation than they were four months ago, and 34 per cent are less optimistic.

The resulting balance of minus 22 per cent indicates a sharp drop in business confidence, even though 58 per cent of the respondents said their optimism had not changed in the past four months.

Large companies have become more pessimistic than small businesses, and only seven of 44 industry groups in the survey indicate greater optimism—among the seven is coal and petroleum products which report a significant improvement.

On investment, there is a slow decline of companies intending to increase their capital expenditure on both plant and machinery. There is only a balance of plus 8 per cent in the number of companies planning to invest more, rather than less, in the next 12 months than they did in the past year.

On buildings, there is a negative balance with 9 per cent expecting to invest less rather than more.

"The results of the survey, although only partly referring to investment in 1979, may indicate some downward re-

vision to investment plans for the rest of the year," concludes the CBI.

"For the early part of 1980, these results suggest that the rate of investment growth will slow further. However, there is no evidence yet from the investment intentions contained in the survey results of sharp falls in investment for the private manufacturing sector as a whole."

On employment, the proportion of companies expecting a decline during the next four months points to falling employment levels in manufacturing industry, says the report.

The downward trend is more marked in larger companies and in the metal manufacturing industry. Instrument engineers are the only industry with a markedly strong upward trend in future employment expectations.

The balance of companies reporting an increase in the volume of new orders has fallen from plus 11 per cent in April to plus 6 per cent. It is assumed that the better April return indicated a recovery in orders after the winter's strikes. Consumer industries have shown the best results, but overall a weakening of demand is expected over the next four months, especially in intermediate industries.

Capacity utilisation improved again during the past three months with only 51 per cent of companies in the survey saying they are working below a satisfactory full rate of operation. This compares with 55 per cent in April, 61 per cent in January, and 64 per cent a year ago.

The current figure indicates the highest rate of capacity utilisation since April 1974, when industry was recovering from the three-day week, and is similarly ascribed to "temporary catching up" following last winter's strikes.

#### Shortages

Looking ahead, shortages of orders and sales are listed as the main constraint to output over the next four months.

Shortage of skilled labour remains the second most important constraint but, says the CBI, is now mentioned by a lower proportion of participants than would be expected on the basis of the past relationship with the level of capacity working. Nevertheless, the problem is serious for companies in businesses such as agricultural machinery, constructional steelwork, instrument engineering, and hosiery and knitwear.

On exports the survey shows that only 7 per cent of the companies affected are more optimistic about prospects for the next year than they were four months ago. While 45 per cent report no change in their view, 47 per cent are now less optimistic.

The resulting balance of minus 40 per cent is the worst since this question was first asked in June 1961. The deterioration is spread across manufacturing industry with only two of the 44 sectors saying their prospects have improved.

There appears to have been little change in the volume of new export orders in the past four months but a decline is indicated for the next four months, especially in intermediate industries such as metal manufacture and textiles.

"Of the factors which are likely to limit the ability of companies to obtain new export orders over the next four months, prices relative to those of overseas competitors continues to be by far the most important," says the survey report.

"This constraint is itemised by 68 per cent of participants, a record for this question which was first introduced in June 1964." Smaller companies and those in intermediate industries seem to be worst affected, says the CBI.

CBI Industrial Trends Survey, July 1979, No. 73. Full results annual subscription £75 (CBI members £30). CBI, 21 Tothill Street, London SW1.

## Export trade

Companies completing these questions have direct exports exceeding £10,000 per annum. Number of respondents 1,355.

Are you more, or less, optimistic about your export prospects for the next 12 months than you were four months ago?

	More	Same	Less	N/A
7	45	47	1	
(19)	(54)	(26)		

Excluding seasonal variations, do you consider that in volume terms:

	Above normal	Normal	Below normal	N/A
(a) Your present export order book is	16	44	36	4
	(21)	(41)	(35)	

Excluding seasonal variations, what has been the trend over the past four months, and what are the expected trends for the next four months, with regard to:

	Trend over past four months	Expected trend over next four months
Up Same Down N/A	Up Same Down N/A	Up Same Down N/A
Volume of total new export orders	24 47 26 3	17 52 28 3
	(27) (44) (26) (4)	(35) (53) (18) (4)
Volume of export deliveries	31 45 23 2	26 47 24 1
	(24) (45) (23) (2)	(32) (54) (12) (2)
Average prices at which export orders are booked	47 40 11 2	49 37 12 2
	(51) (40) (11) (2)	(52) (39) (17) (3)

What factors are likely to limit your ability to obtain export orders over the next four months?

	Prices	Credit	Quota	Political	Other
(compared with overseas competitors)	60	14	7	11	37
	(67)	(17)	(8)	(12)	(33)

## General replies

TOTAL TRADE—1,891 respondents. All figures are percentages on a weighted sample. Figures in parentheses show the response to the survey carried out last May.

Are you more, or less, optimistic than you were four months ago about the general business situation in your industry?

	More	Same	Less	N/A
12	53	34		
(21)	(64)	(15)		

Do you expect to authorise more or less capital expenditure in the next 12 months than you authorised in the past 12 months on:

	More	Same	Less	N/A
(a) Buildings	21	38	30	10
	(24)	(36)	(28)	(10)
(b) Plant and machinery	34	39	26	1
	(37)	(38)	(25)	(1)

Is your present level of output below capacity (i.e. are you working below a satisfactory full rate of operation)?

	Yes	No	N/A
52	49		
(55)	(44)		

Excluding seasonal variations, do you consider that in volume terms:

	Above normal	Normal	Below normal	N/A
(a) Your present total order book is	18	45	30	2
	(20)	(45)	(30)	

Excluding seasonal variations, what has been the trend over the past four months, and what are the expected trends for the next four months, with regard to:

	Trend over past four months	Expected trend over next four months
Up Same Down N/A	Up Same Down N/A	Up Same Down N/A
Numbers employed	18 50 32 1	13 58 29 1
	(17) (47) (32) (1)	(13) (58) (29) (1)
Volume of total new orders	30 43 26 3	17 52 27 2
	(22) (45) (31) (2)	(33) (53) (12) (2)
of which:		
Domestic orders	32 46 20 2	17 57 26 2
	(34) (47) (19) (2)	(23) (55) (19) (2)
Volume of output	26 59 13 2	22 55 18 2
	(26) (54) (18) (1)	(30) (53) (16) (1)
Volume of domestic deliveries	35 48 17 1	25 57 18 1
	(30) (49) (20) (1)	(32) (54) (14) (1)

Stocks of:

	Raw materials and brought in supplies	Work in progress	Finished goods
(a) Raw materials and brought in supplies	36 51 17 2	13 63 22 3	
	(24) (57) (18) (2)	(16) (70) (13) (2)	
(b) Work in progress	26 54 18 2	12 62 18 2	
	(24) (56) (16) (2)	(16) (65) (13) (2)	
(c) Finished goods	24 44 18 14	13 54 18 14	
	(20) (47) (21) (12)	(13) (53) (18) (12)	

Average costs per unit of output:

	Domestic orders	Export orders
75 30 1 1	77 21 1 1	
(75) (30) (2) (1)	(74) (22) (2) (2)	

Average prices at which:

|--|



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## MANAGEMENT

## The "spiral staircase" leading to Japan's top jobs

BY SANDRA SAMAN

SATOSHI OKUBO's appointment last year to the most important financial job at Honda Motor of Japan came after a lifetime with a single company. Yet his professional background was anything but narrow. From the time he joined Honda from university in 1955, he worked in sales, accounting, manufacturing and, for 15 years, in personnel, serving in finance for only a short time before his latest promotion.

Okubo's career progress through Honda, up to the position of managing director for finance, would be highly unusual in a Western company. But in Japan it is a typical example of the national system of management development. Unlike Western corporations, which may sometimes shift a promising executive from a line job to a related staff job, and then back again, Japanese companies make a point of exposing their managers to the entire range of corporate functions.

So well-established is this circuitous career route to the top that it is common to hear Japanese managers refer to the "spiral staircase" in contrast to the strictly linear Western metaphor, the ladder. The job rotation system accounts for many of the strengths as well as the weaknesses of Japanese business. "For their first one or two years, the new graduates may be worthless," says Masaaki Imai, president of the Cambridge Corporation, a Tokyo management consultancy. "But after 10 to 15 years, they become the solid foundation of the company."

The Japanese believe that the practice helps to create company men who have the interests of the entire organisation at heart rather than those of their individual departments. It also helps transform the company into a community where members are likely to know each other personally and be able to work as a team, a fundamental objective in egalitarian Japan.

The job rotation system also overcomes many of the disadvantages inherent in life employment — still dutifully followed by most firms. When an executive is virtually tied to one job for life, without the

likelihood of being either fired or hired elsewhere, he could easily succumb to complacency and boredom.

The danger is particularly acute among the Japanese, suggests Nobuo Kitajima, a Honda general manager who believes that his countrymen are short sprinters, not long-distance runners. A man who has held the same position for more than five years will defend the status quo, while a newcomer can criticise and seek to improve what he finds. Kitajima believes.

Western critics say that the system has major drawbacks. A common complaint was recently voiced by the managing director of a small English company, in the decade of his business relationship with Mitsu, the giant trading house, he had had to work with a series of strangers. Some of Mitsu's Japanese customers have also complained about the continual turnover of trading agents: this has forced the company to modify the mandatory three-year rotation scheme that it inaugurated several years ago.

Other Westerners complain that the system breeds generalists at the expense of needed expertise. William Royce, a senior economist for SRI International, the California research and consulting group, says "the absence of specialisation in Japanese management makes it virtually impossible to give good staff members the training and experience necessary to become real experts at any particular function." As a result, says Royce, Japanese companies have, to their cost, neglected long-term planning and financial analysis.

## Docile

Certainly the system depends upon a docile managerial group that unquestioningly accepts its role as a cog in the great corporate machine. The levelling process begins on the employee's first day when, whether or not he has a university diploma, he is often required to put in time at a relatively menial production job. At Honda that period of servitude typically lasts for a year before the young man is transferred to his next job, usually of the company's choosing.

For the following 10 to 20

years, depending on the nature of the company, the graduate who entered together in the same "class" may well advance through the company step by step, while others may be promoted at high speed, and eventually approximately the same salaries.

Recent economic pressures have begun to slow the march of the classes, but the automatic promotions are discontinued earlier, the most promising being allowed to be sent out earlier in their careers. Those who are left behind, to specialise within a department. But at least for the first decade of each employee's life, rotation still remains the rule. Mitsu, while beginning to discriminate among employees at the assistant manager level, nonetheless applies job rotation to its younger executives as zealously as does, say, shifting the average industrial every three years. As at Japanese companies, all usually insist that it is promising employees, not some time in personnel, is a department held in far less esteem in Japan than in the West.

To implement its rotation scheme, the personnel department at Mitsu conducts a rotation study each November, using a computer on which are recorded each employee's positions and duration in every. If the computer turns up someone who has been in one position for more than five years, it is an investigation to determine the cause. This tracking system also ensures that employees are not stranded for a long time in some remote area of the world where Mitsu is doing business.

Even companies without a formalised rotation programme, however, still try to create generalists. Although most are capable of appreciating the company's overall management, the tradition of life tenure encourages companies to invest heavily in formal education. Although most still try to create generalists, potential managers in Japan who are capable of appreciating the company's overall management, the tradition of life tenure encourages companies to invest heavily in formal education. Although most still try to create generalists, potential managers in Japan who are capable of appreciating the company's overall management, the tradition of life tenure encourages companies to invest heavily in formal education.

The scheme is based on the "kyoto," loosely translated as the deputy headmaster of a school. (IHI's president, who originated the scheme, is equivalent to the headmaster himself.) In this method, IHI's 3,000 middle managers are divided into groups, with each group containing a judicious mix of engineers, administrators and others from IHI's shipbuilding, pulp and paper, engineering, cement and other sectors of activity. There are 24 groups in all, each led by a kyoto who is a department manager or higher.

Each group annually selects a subject relevant to IHI, such as overseas procurement or in-house engineering ability, and at its monthly meetings discusses ways to make improvements. There are also discussions on more abstract themes, such as "What is a Japanese?" and sensitivity training. While the kyoto conducts the meetings, company executives are sometimes invited to address the group in their particular fields of expertise, such as exchange control or combating absenteeism.

## Massive

Through such groups the company hopes to achieve a more general outlook. It believes this attitude has become more important as IHI shifts from traditional line-and-staff management to project management. Last year, for example, IHI completed a massive turnkey project for a Brazilian company—a huge pulp-making and utility power plant that it constructed in its shipyard in Japan and then towed up the Amazon. The project called on every division of IHI except the aircraft sector.

While schemes such as the kyoto system constitute a more informal means of employee education, Japanese companies also invest heavily in formal education. Although most still try to create generalists, potential managers in Japan who are capable of appreciating the company's overall management, the tradition of life tenure encourages companies to invest heavily in formal education. Although most still try to create generalists, potential managers in Japan who are capable of appreciating the company's overall management, the tradition of life tenure encourages companies to invest heavily in formal education.

and construction firm, allocates an annual ¥200m (£412,000) for education and training, of which half is spent overseas. In an average year it sends a select 15 or so employees abroad for a minimum of three months, at a cost per man of ¥2m. The employees, primarily managers or assistant managers who have worked for NKK for at least three years, study specialised subjects selected by the firm. In England, NKK executives have studied international finance and civil engineering.

In a typically Japanese blend of tradition and modernity, NKK's advanced education programme is hampered by the firm's rigid hierarchical system. While the company would like more managers to acquire masters' degrees in business administration, the more senior employees would normally be sent abroad lack sufficient knowledge of English.

But it would violate the pecking order to educate the younger men who have a better grasp of English, explains an NKK personnel manager, and in any case, the young men would become frustrated when they returned — as hierarchy dictates they must — to junior jobs at NKK.

In the long run, the substantial investment pays off because there is little turnover among even the best-educated and seemingly most marketable employees. Unlike Western companies, Japanese firms do not bid for expertise. Of the 50 engineers and scientists that NKK has so far sent to study abroad, only one has left the company—and he joined a university faculty, not a rival firm.

Senior managers at NKK admit that if employee turnover were to be significant, the company might have to make provisions to recover its education costs. In fact, serious erosion of the practice of life employment would arguably lead to an evolution of the job rotation system into a more Western-style approach to management development. But genuine change takes place slowly among the Japanese and, in a country where the shortest distance between two points is usually a crooked line, the spiral staircase seems likely to endure.

## Multinational approach to cutting costs

BY ERIC SHORT



THE PROVISION of life and other associated insurance benefits by multinational companies for their employees throughout the world is now an accepted feature in the overall remuneration package. Most such companies spend considerable sums in their global business and in many cases the insurance in a particular country is placed locally without any connection or overall pattern with that placed in other countries. And in so doing the companies could be spending more money than is necessary.

The additional cost arises on two counts, the first being from the restrictive practices imposed by authorities on their country's insurance industry, or from commercially imposed cartel operations.

In the UK, insurance companies are completely free from government control regarding the setting of premium rates, consequently life premium rates are very competitive and companies buying life insurance generally get a good deal.

## Rates set by legislation

In contrast, the premium rates for certain types of insurance business are fixed by legislation in a number of European countries. Competitive premium rates and profit schemes in the form of bonuses are unknown.

The original object of this tariff system was to protect policyholders. But with improving mortality and historically high interest rates, insurance companies have been making substantial profits on life business which have not been returned to the policyholders.

The second additional cost arises because benefits of scale are not realised. The unit cost of buying life insurance falls with the increase in numbers of employees being insured. If a multinational has only a small number of employees in a particular country, its insurance costs are assessed on that particular number, and no account is taken of the total number of employees worldwide.

However, a development in recent years where the operations of insurance companies in

different countries are combined now offers multinationals the opportunity to cut insurance costs. This co-operation is known as a multinational insurance management or a "network," the workings of which are explained in a booklet published by International Consultants, Metropolitan Pensions Association (International).

A multinational insurance arrangement is effectively an agreement between the insurance companies in the various countries which pool their insurance results in respect of a particular client. The system works as follows: each insurance company accrues annually the profit from a particular client from the insurance placed with it. This can arise from a variety of sources—death claims being less than expected, lower administration expenses than assumed, higher investment income than projected being among the main sources.

The profit is then related to a pool—known as an international dividend—and each company can usually receive this rebate in a particular currency. A spin off from this set-up is that multinationals can effectively transfer funds from one country to another irrespective of the exchange control regulations that may be in force. The MPA booklet warns that the governments are aware of this implication in avoiding exchange control and that blocking legislation could well appear at some time.

Other, not insignificant, cost savings and benefits are also available to both the company and its employees through using a network. A company can, for example, get credit for its total number of employees worldwide. The insurance company is prepared to cost the cover on the basis of the total number of employees, not just those employed in a particular country.

The higher the number of employees, the more relaxed are the underwriting arrangements. Thus an employee with poor health could get full cover whereas, in a smaller pool of employees his cover could have been restricted. For example, if he works in the UK where only 25 persons are employed the cover he could get without evidence of health is likely to be limited to £50,000, but if there are over 250 employees worldwide, he could get up to £150,000 cover automatically.

Arranging network insurance can also simplify the transfer of benefits when employees are moved from one country to another. Full reserves can be transferred, underwriting will be on the same basis and most important, the payment of pension can usually be made in one chosen currency. So, if a UK national dies before retirement while working in Holland, the pension to his widow and dependants can be paid in sterling.

is prepared to cost the cover on the basis of the total number of employees, not just those employed in a particular country.

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## Greater control

Finally, operating through a network enables the parent to maintain greater control over the benefit structure of the group. After each review period—usually a year—the network secretariat supplies the parent company with an account showing the financial transactions of each of the plans covered by the network. The local cost breakdown included in this account details premiums paid, the expenses charged and the local plan's contribution to the international dividend pool. The parent company can therefore have immediate access to details of all plans of operations covered by the network.

"A Study of Multinational Insurance Contracts in the context of Employee Benefits" from Metropolitan Pensions Association (International), Haymarket House, 28 Haymarket, London SW1Y 4SR (telephone 01-836 7411).

## Technical News

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

## COMMUNICATIONS

## Speeding the news to site

FACSIMILE, WHICH will be an essential part of the electronic office, is a major development area for a number of leading companies. Siemens has gone one better than its rivals with a new machine for unattended reception which incorporates an ink-jet printer to give noiseless recording of information on normal paper fed from a roll.

HF 2050 is attended at the transmitting station and can function in either mode at the receiving end. Documents for transmission are scanned optoelectronically.

At the receiving end, a 12-nozzle ink-jet recorder prints the output, the ink droplets being "shaped" into characters as they pass through appropriately modified electrical fields.

Messages exchanged between subscribers operating on the three-minute (A4) speed are recorded at a scanning density of 3.85 lines per millimetre. In the two-minute mode running, where equipment at the receiving end permits scanning density is 3.08 lines/millimetre. For typed messages, very satisfactory results from the legibility aspect can be obtained on two-minute running.

At the end of each transmission run, the paper carrying the incoming message is automatically extended to the next larger size, A5L or A4, cut off and stacked.

Automatic station identification, stack feed for transmission, internal V24 interface and a key switch for barring the "send" function are options that can be retro-fitted.

Siemens is offering this equipment to meet situations where availability at all times is essential, such as in the operations of utilities, technical support offices and spare parts stores. Failure to contact a correspondent due to lost-time or difference in business hours between countries and continents is one of the problems neatly solved by this typewritten machine. Further from Siemens on 09327 85691.

## ASSEMBLY

## Press for the new Mini

TWIN RAM hydraulic presses which will electronically check bearings and oil seals before assembling them into the front hubs of the new Austin Morris Mini Metro are being supplied by John Hounsell (Engineers), of Rowley Regis.

The car company's specification was for a hydraulic press capable of automatically probing components to check for correct loading before assembling them into the hub. The machine that Hounsell developed was a four-column twin-ram press with a 4.75 tonne capacity, a stroke of 8 inches and "daylight" of about 15 inches, giving good access to the tools.

Use of twin rams meant that two different operations could be performed in one cycle: while the first probes and assembles the inner and outer bearing race into the hub, the second probes and assembles the oil seals and spacers round the bearings.

Small probes built into the tools will only make contact with the components when they are properly loaded. If no contact is made, the rams will not operate and a fault is indicated to the operator.

## HEATING

## Saves on fuel usage

NEWLY DESIGNED by British Gas Midlands Research Station, a vat and tank heating burner is to be marketed by Wellman Selas.

The name chosen for this equipment is Vasek and it has been designed specifically for the heating of solutions in containers by direct gas firing of small-bore immersion tubes.

Burner designs such that it combines the efficiency of gas firing with the compactness of steam heating.

Common to many industries, the heating of tanks and vessels is generally by means of steam-fired immersion tubes or gas-fired natural draught immersion tubes. Typical applications would include degreasing and pickle tanks, hatching vats and various operations in brewing.

The new equipment will allow costs to be cut both in capital installation and in fuel consumption.

Efficiency of the steam-fired systems does not exceed 60 per cent while the natural draught gas-fired systems go up to 75 per cent. The new and much more compact equipment has a

## TEXTILES

## High speed weaving

WITH textile machine building generally at over-capacity throughout the world, current news is of companies being established to make machines for complex new processes. However, such is the situation in weaving that there is clearly a market for simple, robust and inexpensive machines if they are offered with a distinctive advantage.

A gripper-shuttle loom has been developed in West Germany by a company called Nentex International GmbH (British representative: Schulz Systems (UK), 10 Eden Place, Chislehurst, Kent, SE26 4JH). The main

feature of this high speed weaving machine is its extremely low price compared with equipment intended for similar weaving speed, at matching widths. The concept of the loom is extremely interesting.

Some years ago, a loom designated STB was developed in the Soviet Union and attempts were made to market it in the West, but there was virtually no acceptance as it was felt that the reliability of the machine

claimed efficiency of 80 per cent. Five sizes of burner have been developed with ratings from 160,000 to 1m BTU/hr (approximately 50 to 300 kW) for use on tubes which conform to BS 337 (or equivalent), the tubes being 1.5, 2, 2.5, 3 and 4-in nominal bore. These outputs are far higher than needed for domestic installations and so far as is known there is no plan to

reduce the size of the equipment to meet the needs of this particular market.

Wellman Selas is a subsidiary of the Wellman Engineering Corporation specialising in the manufacture of industrial burners and valves as well as the design and installation of combustion systems. It operates from City Road East, Manchester M15 4PJ. 061-236 2642.

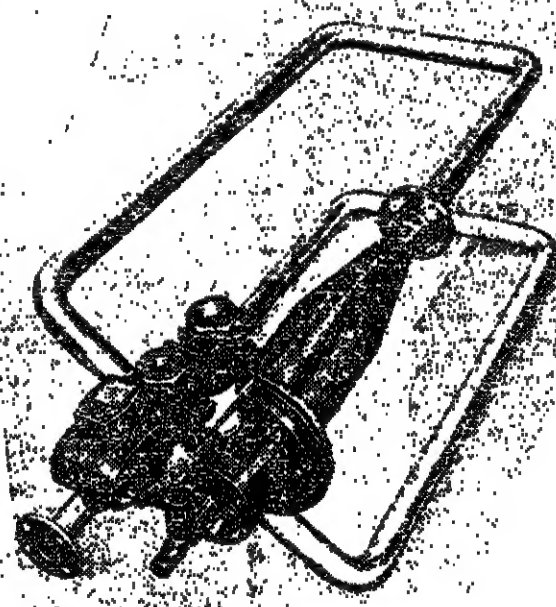
However, the Nentex MSL loom is based largely on the Russian concept. It has been built with basic components from the USSR, Hungary and Czechoslovakia, while the more critical elements such as reeds, beards, temples, tension bars, etc., are either West German in origin or from the U.S.

There is a guarantee of support and service that now makes the new loom of interest to Western weavers.

The introduction of the MSL Micro Shuttle Loom to the trade recently generated much interest and it was described as the "Volkswagen" of weaving.

It is being built in one, two and four colour versions and with a machine making a cloth of say 3300 mm width at 235 picks/minute this represents a weaving rate of about 742 m/min at 100 per cent efficiency.

Unlike many shuttle looms, the MSL produces a cloth with a tucked-in selvage



## AGRICULTURE

## Better greenhouse crops

RAISING the CO<sub>2</sub> level in greenhouses is a widely-used technique for improving the yield and quality of many vegetables, particularly lettuce, tomatoes, cucumbers, spinach and strawberries, says Heylo Heating and Ventilating, 53 Fleet Street, London EC4 3DL (01-353 5601).

Additional advantages include shortening the growing cycle and being able to bring crops to maturity one or two weeks earlier when prices at market for quality produce can be at a premium. These benefits also apply to growing roses, carnations, freesias, chrysanthemums, orchids, and other flowers and ferns.

Providing carbon dioxide enrichment—and helping to relieve the worsening situation caused by the present shortage of premium grade paraffin—is the company's direct-fired gas heater which will work on town or natural gas.

Largest in the company's

range of CO<sub>2</sub> generators, it is capable of increasing the temperature of 8,700 cubic metres of air by 47 degrees C an hour.

The recommended maximum greenhouse area for CO<sub>2</sub> enrichment is 16,500 square feet, depending on the type of crop, required CO<sub>2</sub> level, and type and condition of the greenhouse.

Using a timer and/or a thermostat, up to six units can be connected in series to accommodate larger areas and give more uniform distribution.

Advanced design feature of the new generator is the provision of a quick-acting safety cut-out, consisting of an ionisation electrode mounted in front of the burner and wired into the control box. Should the flame die due to an ignition spark failure or temporary interruption in fuel supply, the absence of ionisation current triggers the control box which instantly cuts off the fuel supply.

## ELECTRONICS

## Micro on a board

WITH SMALL scale automation and process control applications in mind such as automatic weighing and batching machine tool control, material handling and security systems, Startronic of Exhill has introduced the SSC-1, a complete microcomputer on a single Eurocard measuring only 100 x 100 mm.

Although many companies might still be thinking in terms of dedicated logic control systems, Startronic points out that the need to tailor the circuits to each and every application can mean that development costs often far exceed the cost of the hardware involved.

The idea behind the SSC-1 has been to design a standardised piece of equipment which would suit a wide range of systems simply by programming to meet each need.

Basic specification includes a 1024 x 8 non-volatile program

memory which can be supplied pre-programmed to the user's initial specification and subsequently re-programmed.

An on-card battery backs up the 256 x 8 read/write memory for data retention during power loss and a buffered high-way allows operation up to 15 volts, giving good noise immunity.

Maximum input/output capacity is 128 lines, and each standard interface card provides eight inputs and eight current drive outputs of 750 mA each at up to 60 volts.

The SSC-1 software meets a wide range of requirements, and program changes can be made either by Startronic or by the user, employing programming equipment that can be bought or hired.

More from the company at Beeching Road, Exhill-on-Sea, Sussex TN39 3LG. (0424 214291).

## Acquires the data

DESIGNED to meet the needs of modern systems engineering and control where the IEEE bus concept is being used for intercommunication, the 8000 series from Penmark Precision Measurement will provide timing, scan a basic 100 channels (1,000 are possible) and provide latching relay output control.

The unit is for use in instrumentation/control systems where up to 15 devices can be connected together using the IEEE digital bus which uses eight data lines, eight management and "handshake" lines to allow the devices to communicate in accordance with

overall computer control. Typical bus control in PPM's systems are Commodore PET, Hewlett Packard and Tektronix VDU/keypad machines.

For such systems the basic model 8100 would be used, consisting of basic timing/scanning with no display or channel monitoring. The 8000, however, has a user display of selected channel number, elapsed or calendar time display, status display, and a data display if an analogue to digital converter is fitted.

More from the company at Hermitage Road, Woking, Surrey (04897 89111).

## Atlas Copco compressed air systems.

A force you can turn into profit.



## STORAGE Package for tapes

UP TO six audio tape cassettes can be fitted into a box injection moulded in one piece from polypropylene and now being produced by the industrial division of the London Association for the Blind. Hinged fasteners are integrally moulded.

The boxes, which are suitable for both storage and posting, have slots for removable address cards, spaces for names and addresses, for advertising matter and for library reference tabs. Supplies can be obtained from the Association at 14-16 Verney Road, London SE16 3DZ (01-722 8771).

## CONFERENCES Sheet and strip

THE ANNUAL Conference of The Institute of Sheet Metal Engineering will be held at The Unicorn Hotel, Bristol (October 24 to 26), and will take as its main theme "Sheet and Strip Processing". The conference is being held in association with The National Association of Steel Stockholders and the British Contract Presswork Association.

Details may be obtained from The Conference Secretary, The Institute of Sheet Metal Engineering, Queensway House, 2 Queensway, Redhill, Surrey RH1 1QS, England. 0737 66611.

## Many new products

OF MORE than 130 companies taking part in FILLERCON/79, Olympia, London, September 17-20, 50 of them promise to show products for the first time in the UK and in several cases, these will be European or world launches. Amongst them are: Filtration Society, 7, Keston Road, London, Surrey; and

مکان العمل



## FINANCIAL TIMES SURVEY

Wednesday August 1 1979

هكزامن الاصل

## Satellites

As a technological tool of mankind, the unmanned Earth-orbiting satellite is still less than 22 years of age, but it has already revolutionised communications and meteorology, and looks like doing the same in many other fields in the years ahead.

## Keeping tabs on the Earth

By Michael Donne  
Aerospace Correspondent

THE WORD "satellite" first penetrated general consciousness with the launching of the Soviet Sputnik 1 in October, 1957. Since then, those unmanned Earth-orbiting devices have become almost commonplace. While communications and meteorology (and particularly weather forecasting) remain at least for the present, the biggest single fields of satellite activity, the ever-expanding roles of the satellite now encompass two major fields. These are "scientific" satellites, which are aimed at expanding man's knowledge in many different scientific disciplines, and "applications" satellites, for a widening range of practical tasks. The latter include monitoring Earth's resources (in turn ranging from the detection of fish shoals to discovering new mineral deposits), through to environmental studies and such other uses as navigation.

Satellite technology, and its associated communications links with the ground, are now sur-

reliently well understood and established for the scientists throughout the world, but especially in the U.S. and Europe, to be able to spend more time and money on exploring new applications. The satellite itself has now become little more than a vehicle, into which an ever-widening array of micro-miniaturised components can be installed to make it do almost anything that mankind wants it to do. Whereas, initially, the size of satellites was restricted also by the ability of launch vehicles to cope, the impending emergence of new launcher systems such as the U.S. Space Shuttle and the European Ariane will enable even bigger satellites to be placed in space, and perhaps even the construction in space of satellites and space stations that could not be launched from Earth in one piece because of their size.

It is estimated that there are already more than 2,400 satellites of various kinds—communications, defence and others—in orbit round the Earth, and that over the next decade, well over another 200 will be added to the score, for a wide variety of purposes. Many of these will be satellites for undeveloped countries seeking to improve their own communications links with the rest of the world, and to get the benefit of the widespread new technological development that the growing field of satellites offers.

These developments, collectively costing several billion dollars, will all need to be financed. In many cases, of course, governments will be supporting the ventures as part of overall economic develop-

ment schemes. But in other cases, and especially where commercial satellite ventures are concerned, there will be a need for loans of substantial size—for the provision of, say, a three-satellite communications system with associated ground stations can cost anything up to \$150m. There is no reason why this kind of cash cannot be provided by existing financial institutions, in much the same way as new fleets of civil airliners are already funded. Indeed, a number of banks and other institutions in the City of London are already involved in this business.

The biggest single fields of actual and prospective satellite applications at present are in telecommunications and meteorology. There can be few TV viewers who have not by now seen pictures of events on the other side of the world almost as soon as they have occurred, or few businessmen sitting in their offices who have not been instantly connected with others many thousands of miles away—without realising the enormous strides in satellite and earth station technology that have made such developments possible in recent years.

## Pace

An example of the pace of development of satellites is afforded by the International Telecommunications Satellite Organisation (Intelsat), whose first communications satellite, Early Bird or Intelsat-1, of 1965 had a capacity of 240 two-way voice channels or one TV channel. The latest satellites, Intelsat-Ve, have an average of 12,000 simultaneous two-way telephone circuits and two TV

channels. The system is served by over 100 locally owned ground stations in more than 70 countries.

These and other satellite developments will continue through the 1980s, to the point where it will become possible for business organisations and industrial users to be immediately linked by video-phone to customers and others on the other side of the globe; for scientists in all disciplines to probe the Earth's surface with lasers and other devices to discover not only new sources of oil, coal and other minerals, but also to detect the incipient emergence of environmental problems, such as pollution, or even earthquakes, before they can grow to disastrous proportions; and for home TV viewers to set the latest satellite weather pictures or other data at the press of a button.

In the U.S., much of the past and present satellite activity has been and is undertaken by the Government-owned National Aeronautics and Space Administration. But there has also been a growing tendency for U.S. commercial organisations to develop in this field, such as the Communications Satellite Corporation (COMSAT), which manages the Intelsat system on behalf of the countries that own it, and other more recent organisations such as Satellite Business Systems, formed jointly by IBM, Comsat General (a wholly-owned subsidiary of Communications Satellite Corporation) and Aetna Life and Casualty.

In Europe, although many countries continue to run various space activities of their own, including the commercial manufacture of satellites for

both scientific studies and applications technology purposes, the major space developments are entrusted to the European Space Agency, set up in May, 1975. Its task is to provide for and promote, for exclusively peaceful purposes, co-operation among European countries in space research and technology, with a view to their use for scientific purposes and for operational applications. The members are Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland and the UK, with Austria, Canada and Norway participating in certain programmes.

The general budget for 1979 amounts to 570m accounting units (or about \$684m), with France and West Germany being the biggest individual subscribers at 33.4 per cent and 26.5 per cent respectively. The UK's contribution in 1979 is 11.7 per cent. The biggest single items of expenditure in the current year are the Ariane rocket launcher, designed to provide Europe with an independent satellite launching capability, taking 28.6 per cent of the budget, and the Spacelab, the manned orbital laboratory which Europe is developing as its contribution to the U.S. Space Shuttle, taking 22 per cent of the budget.

Since 1972, Europe has spent about \$2bn on space activities both through the ESA itself and its immediately preceding international organisations, such as the European Space Research Organisation and the European Launcher Development Organisation, both of which were merged into the ESA on its formation. While all member states are required to subscribe to certain pro-

grammes, such as the scientific programme, of the ESA, other ventures are optional, such as the Ariane launcher, the Spacelab and various telecommunications and Earth observation satellites. The latter are funded according to a formula that enables States wishing to participate in a given programme to choose the level of their contributions freely.

Comparatively little detailed information is available about the use of satellites for defence purposes, but it is known that, apart from normal defence communications, both the U.S. and European nations already make considerable use of information derived from satellite surveillance of the Soviet Union and Warsaw Pact countries, and vice versa, and this is likely to become even more significant in future as part of the verification techniques of ballistic missile developments required under the SALT II agreement between the U.S. and the Soviet Union. Mr Lyndon Johnson, when President of the U.S., remarked that the reconnaissance value of space technology alone was worth many times the entire U.S. investment in all space activities, and this assessment must be even more accurate today. The long-term development of satellites as weapons-carriers cannot be ruled out. Technologically, it is already possible, but the mutual destructiveness of such systems appears to be sufficient at present to keep the major protagonists from embarking upon large-scale development programmes in this field.

Of more immediate significance, in the light of current

energy problems, must be the development of major satellite systems that can utilise the sun's energy in space and transmit it to Earth. In recent years, many ideas have been mooted for such developments, but hitherto, their high cost, allied to technical difficulties, have prevented any large-scale programmes from getting under way. As the energy difficulties on Earth multiply in the years ahead, however, it seems likely that increasing attention will be paid to such developments, and it is not beyond the bounds of possibility that within a very few years some major schemes will be initiated.

## Savings

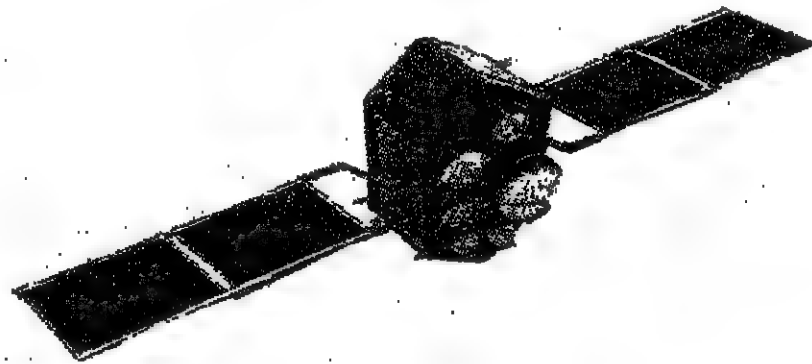
The cost of all these satellite developments over the past few years has been high. It is estimated that several billion dollars has been spent over the past 20 years or so in developing satellites and their associated Earth station technology. But there seems to be little doubt that this investment is now beginning to pay off, and will increasingly do so in the years ahead. According to a report by scientists in the National Environmental Satellite Service of the U.S. National Oceanic and Atmospheric Administration (NOAA), satellite observations of the Earth's atmosphere and surface are already saving industries and government agencies in the U.S. at least \$172m a year, and probably many times that amount. Satellite pictures and other data are increasingly being used as tools of management in the agricultural industry and in the fishing industry, and many other appli-

cations are emerging—EXXON, for example, uses satellite data to ride the currents of the Gulf Stream and thus save substantial amounts of cash and fuel annually in ship operation.

The NOAA report points out that other important activities made possible by satellite-generated information, such as local and global weather forecasting, do not allow for easy computation of cash savings or cost benefits. But the value is believed to be many billions of dollars. The saving of life alone by improved disaster warnings of hurricanes, severe thunderstorms and heavy rainfall or snowmelt is beyond value, and impossible to quantify.

The ESA, in a recent study of the cost-effectiveness of space activities, concluded that the economic benefits derived by companies involved in satellite and other space work amounted to several times the face value of original contracts, resulting in the creation of new products, improvements in the quality of work because of the high technological content of space-related activities and a widening commercial horizon for the companies concerned because of the need for international collaboration and diversification into areas hitherto unexplored.

As the NOAA report pointed out, the advent of the satellite can be summarised as probably the greatest single advance in the routine monitoring of the Earth and its environment in history, not only helping to save lives and property from natural disasters, but also contributing materially to the improvement of mankind and to the efficiency of the world's economies.



EUROPE'S PRE-OPERATIONAL COMMUNICATION SATELLITE ON STATION

## The proven success heralding great things to come

Another major achievement for British Aerospace Dynamics Group,

the ESA communications satellite OTS was successfully launched on the 11th May last year. Completed on time, and within budget, OTS is meeting all its design goals in orbit.

Orbital Test Satellite (OTS) has completed its first year in space. British Aerospace Dynamics Group was the prime contractor leading the MESH consortium that built it for the European Space Agency.

OTS is the pre-operational communications satellite being used to prove the design and system engineering embodied in the European communications satellite (ECS) now being built. The first is scheduled to be launched in 1981. OTS has met and exceeded the performance standards specified and is working perfectly, providing operational experience for European user authorities. It has also successfully performed tasks outside the original concept by receiving TV signals which can be received by small mobile ground stations and by transmitting TV signals which can be received by small mobile ground receivers. During its first year in space, the versatility of OTS as a TV link has been further demonstrated. It was manoeuvred to beam TV to Cairo and Rabat where transmissions were successfully received. French TV is now to be beamed to Algeria via OTS.

With 4 wide band channels OTS can accommodate up to 7,200 telephone circuits, or one channel can handle two TV transmissions. OTS is providing the telecommunications organisations of Europe with practical experience in operational use prior to the commissioning of the two ECS satellites in the early 1980s. Ground data link transmission is also being developed. OTS has a design life of five years but is confidently expected to remain in service beyond that.

Together with two maritime communications satellites, currently being developed for the European Space Agency, the new space programme represents contracts in excess of £75,000,000 and secures employment for many skilled designers and telecommunications engineers throughout Europe, led by British Aerospace Dynamics Group as Prime Contractor.

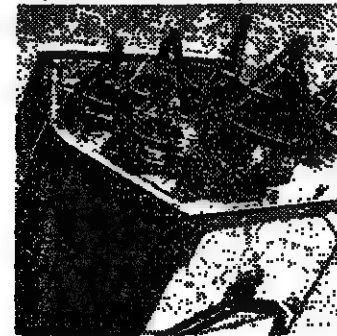
British Aerospace Dynamics Group is an acknowledged international authority in communications satellite technology. It has the expertise and the capability to provide regional communications systems virtually anywhere in the world today and is ready to do so.



SERVICE MODULE ASSEMBLY



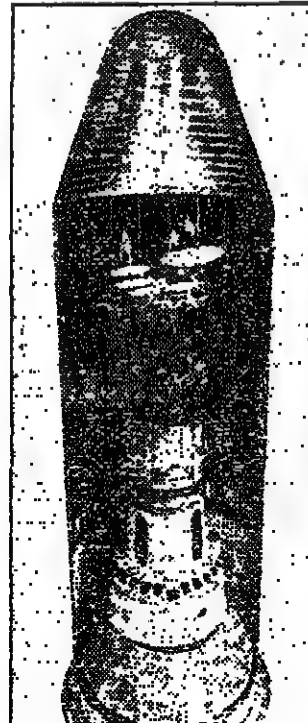
ANTENNA TESTING



THERMAL MODEL



RANGE PREPARATION



INSTALLATION FOR LAUNCH

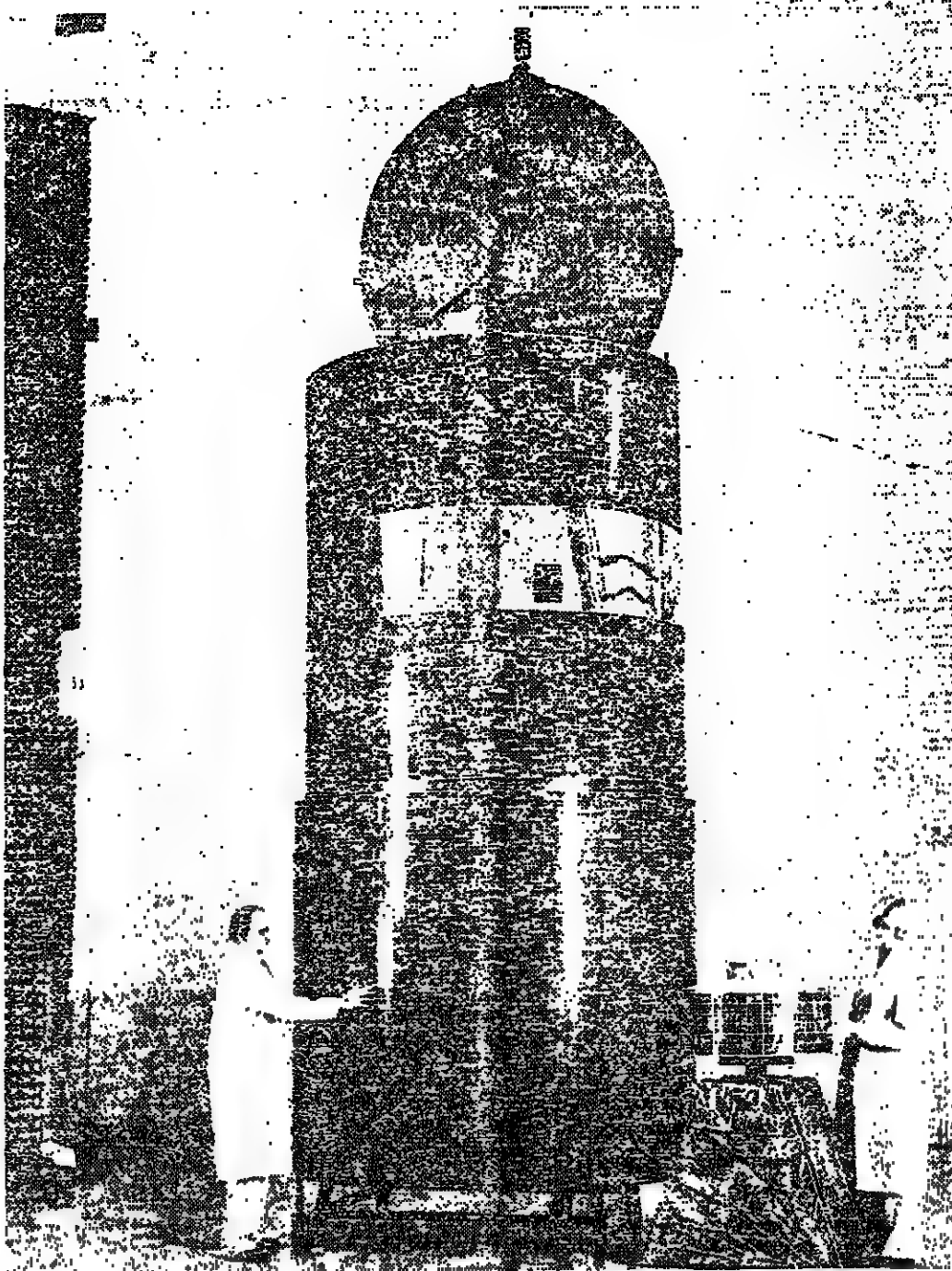
## Complete Regional Communication Systems

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# Civil applications



The rapid growth in the size of communications satellites in less than 20 years is shown in this picture. The U.S. Hughes Aircraft Company's Syncom satellite of 1963 had capacity for 50 two-way voice channels or one TV channel. Dwarving Syncom is a full-scale model of the type of spacecraft to be used in the planned U.S. Satellite Business Systems venture, with capacity for 13,900 simultaneous telephone calls. The SBS satellites will provide U.S. business customers with integrated voice, data facsimile and teleconferencing facilities from 1981

THE CIVIL applications of satellites, as opposed to the scientific tasks they undertake, range widely across not only telecommunications and meteorological studies—still the two biggest single uses for satellites—but also such things as "Earth resources monitoring" and environmental studies. These are also very wide fields of applications, including such diverse things as studying the movements of fish shoals, helping the sea-fishing industry, and other aspects of oceanography, through to navigation, measuring pollution over cities and industrial areas, and helping to determine the location of new mineral deposits. Many of the satellites undertaking these latter tasks are known as "remote sensing" satellites, and already there have been a large number of them, collectively known as the "Earthnet" programme, including the U.S. Landsat, Seasat and the Nimbus satellites.

In Europe, much work has also been done already on this type of Earth observation from space, and plans are being laid to expand it substantially through the 1980s. These include the provision of microwave remote-sensing experiments in the European Spacelab manned orbital laboratory that will be part of the U.S. Space Shuttle Reusable Space Transport programme. It is also planned that the Spacelab will carry a metric camera, a modified Zeiss RMK A 30/23 high-quality aerial mapping camera, to determine the feasibility of producing small-scale maps from space photographs.

The longer-term plans in Europe for a remote-sensing programme include studies for specific satellite payloads that would be capable of studies into agriculture and forestry, water resources, environmental moni-

toring, global ocean monitoring (including studies of the polar ice and the circulation of currents) and coastal ocean monitoring (including studies of fisheries and surveillance of oil exploration and other activities on the European continental shelf).

In the meantime, much work has already been done in Europe by the European Space Agency in such fields as meteorology and telecommunications. The meteorological satellite, Meteosat-1, was launched in late 1977. Every 30 minutes, this satellite provides images of the Earth and its cloud cover, and distributes them to users of the data. Meteosat-1 represents Europe's contribution to what is known as the "World Weather Watch," in which U.S. satellites also participate, and also to the Global Atmospheric Research Programme. Meteosat-2 is planned to be launched by one of the Ariane rocket development flights in 1980.

## Dual

Another meteorological satellite planned for launch by Ariane in 1981 will be Sirio-2. This will have a dual role—the distribution of meteorological data, particularly to African countries which do not have equipment of their own to get data from the World Weather Watch, and also to synchronise on a world scale the atomic clocks (to a precision of one nanosecond, instead of the present figure of 100 nanoseconds), by means of laser echoes on reflectors placed on the satellite.

The Meteosat was built for the ESA by the COSMOS industrial consortium, under the leadership of Aerospatiale of France, and including Marconi Space and Defence Systems of

the UK, Selenia of Italy, ETCA of Belgium, and Siemens of West Germany.

Many companies, but especially those in the aerospace and associated electronics industries, are involved in satellite design, development and manufacture, as well as in the provision of the ground stations and associated infrastructure that the "space segment" requires to be fully usable for mankind. The high precision technology that these work requires is leading these companies into new fields of activity, and is continually spearheading the development of new industrial techniques, especially in such areas as the micro-miniaturisation of components.

In addition to the "space segment," the "ground segment" has developed just as rapidly, with some companies specialising in the design and development of receiving and transmitting stations, including Cable and Wireless and Marconi Communications Systems in the UK.

The size of this side of the satellite business can be gauged from the fact that there are now estimated to be some 200 earth stations in more than 80 countries, providing well over 217 antennae, and many more are likely to be built through the 1980s.

In order to meet the requirements of the European post-telecommunications and broadcasting administrations for point-to-point communications (telephone, telegraph, telex, Eurovision TV programmes and data transmission), the European Space Agency some time ago developed the Orbital Test Satellite (OTS). The first of these was lost on launching in 1977, but the second has been functioning successfully since May, 1978. The aim of OTS-2 has been to demonstrate the performance of on-board satellite equipment and to provide an experimental, pre-operational traffic capacity of 6,000 telephone circuits or 4,500 telephone circuits and two TV channels.

This work will lead into the development of the European Communications Satellite system (ECS), the first satellite of which is due to be launched aboard the Ariane rocket in late 1981. Earlier this year, an organisation called Interim Eutelsat, comprising 17 of the European telecommunications

administrations, signed a \$200m agreement with the ESA for the provision of five satellites over the next decade. Under this arrangement, the ESA will provide the "space segment" for the next 10 years.

The contract for the first two satellites has been placed by the ESA with the British Aerospacelab Dynamics Group, leading the MESH consortium of industrial companies from 10 European countries. The contract for the supply of the next three satellites is still under discussion. The ECS programme will provide Europe with a regional communications system, covering telephone, telex, TV and data transmission, with a capacity equal to 20,000 telephone circuits, or 12,000 circuits and some TV channels. The first satellite will be launched in late 1981, and the second some ten months later. One will be in use, with the other as a back-up, ensuring a continuous operational service.

## Maritime

A programme of development of European maritime satellite is also under way, called Marecs, derived from the ECS satellite, and aimed at making it possible for ships at sea to communicate instantly with shore stations thousands of miles away. The first two satellites, Marecs A and B, are scheduled to be launched by the European Ariane rocket in 1980 and 1981. The operation of the system, including a network of six satellites (three Marecs and three Intelsat-Vs equipped with maritime payloads), will be entrusted to a new international maritime communications organisation, INMARSAT.

Many of the European communications satellites, including the OTS, the ECS and the Marecs, have been or are being developed by a major consortium of companies, called MESH, which includes Eutelsat, Matra from France, ERNO from West Germany, SAAB-Scania from Sweden, British Aerospace's Dynamics Group, Aeritalia from Italy, INTA from Spain and Fokker-VFW from Holland. MESH companies have individual consultancy contracts with TRW Systems of the U.S., thus providing further technical backing for the consortium.

One area of development that is of particular interest to these companies is the pro-

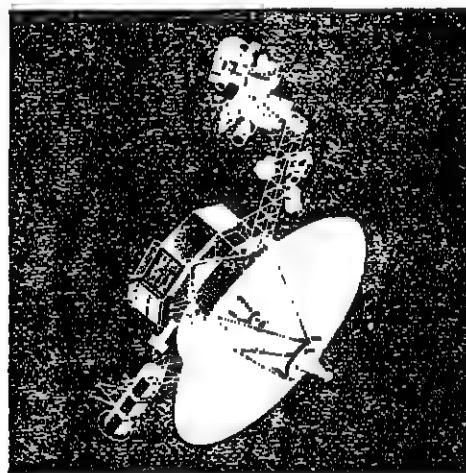
vision of "regional satellites" for communications in particular parts of the world—the supply not only of satellites but also of the associated ground infrastructure including receiving and transmitting stations, and even, if necessary, telephone and television systems where these do not already exist.

Also under development in Europe is the H-Sat, a heavy experimental satellite of about 900 kg, for launch aboard the Ariane in 1982. This is intended to be the forerunner of a large platform in space able to carry a variety of future television and radio communications payloads for direct transmission into homes or community antennae—enabling the dissemination of such programmes over a much wider area.

Beyond these, the ESA has its Advanced Systems and Technology Programme, designed to prepare future satellite systems. Ideas now being developed include the Stella experiment, aimed at exploring high-speed digital data transmissions via satellite, and the Spine project (Space Information Network Experiment), designed to become operational next year, and aimed at experimenting with new methods of disseminating documents using high-speed digital facsimile equipment. The possibilities of video-phone conference facilities will also be studied.

It is regarded as vitally important that Europe develops its own data facsimile transmission systems—so as not to be left behind in the 1980s by developments in the U.S. There, Hughes Aircraft, probably the world's biggest manufacturer of satellites, and associated systems, is already at work on the programme of satellites for the Satellite Business Systems (SBS) group, a consortium formed by IBM, Comsat General Corporation, and Aetna Life and Casualty. Three satellites are being built, with first launch planned for mid-1980. The aim is to provide a domestic U.S. satellite system for private (business, government agencies and other organisations), with large communications needs, giving them instantaneous data, facsimile and teleconference facilities from 1981.

Michael Donne



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# Reducing the cost of launchers

THE NEXT significant event in manned spaceflight is likely to be the first operational launch next year of the manned U.S. Space Shuttle, otherwise known as the "Manned Reusable Space Transport System." While budget cuts have obliged the National Aeronautics and Space Administration (NASA) to slow the pace of development of the Space Shuttle, it is currently planning to launch the Shuttle some time between next March and June, unless further budgetary delays occur.

The Space Shuttle is one of two major launching facilities for satellites and other space activities now under development in the Western world for the 1980s, the other being the Ariane conventional heavy launcher rocket now being built by the European Space Agency. This would be satellite users during the 1980s will have a choice of launching systems, and tough price competition is likely to develop as both systems come to fruition. Already, both systems are collecting customers world-wide, from countries, universities, telecommunications authorities and even commercial and industrial clients who are anxious to have their own satellites in the decade ahead.

In its mission plans for the 1980s, NASA envisages approximately 400 Space Shuttle flights, 40 per cent of which, or about 150 to 160 flights, will be assigned to Spacelab missions. Programmed design improvements to Spacelab are intended to widen its mission capability, and eventually enable it to stay in orbit in the Shuttle Orbiter for periods of up to a month, with free orbital flight outside from the Shuttle Orbiter vehicle also a possibility for long missions. Spacelab would thus represent the first stage of a modular space station in orbit, regularly visited by the Shuttle Orbiter, and which could serve as the basis for the construction and assembly in orbit of large space systems for a wide range of tasks.

Europe's own rival to the Space Shuttle itself as a satellite launching system will be the Ariane, a heavy launching rocket intended to give Europe an independent capability for its own applications and scientific satellites, and to enable it to win a share of the substantial launcher market forecast for the 1980s—estimated at more

than 200 satellites of various kinds. The Orbiter will have a cargo bay containing satellites or other payloads for scientific or other activities in space. In Europe, the European Space Agency, as part of its own contribution to the Space Shuttle, is developing what is known as "Spacelab," a manned and reusable space laboratory which will be carried on Earth orbital missions in the cargo bay of the Shuttle's Orbiter vehicle. Up to three people—scientists, engineers and technicians—will be able to work in Spacelab for periods of about a week.

The first flight model of Spacelab is to be delivered to NASA by the ESA in 1980. The ESA has selected three Europeans: Ulf Merbold (Germany), Claude Nicollier (Switzerland) and Wubbo Ockels (Netherlands)—to participate in the first Spacelab mission in 1981 as European payload specialists. A total of 78 scientific and technological experiments—60 European, 15 American and one Japanese—have been chosen for this first Spacelab mission, covering such things as astronomy, physics of the atmosphere, solar physics, plasma physics, earth observation, life sciences and the processing of materials.

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M.D.



## SATELLITES III

## At the service of science

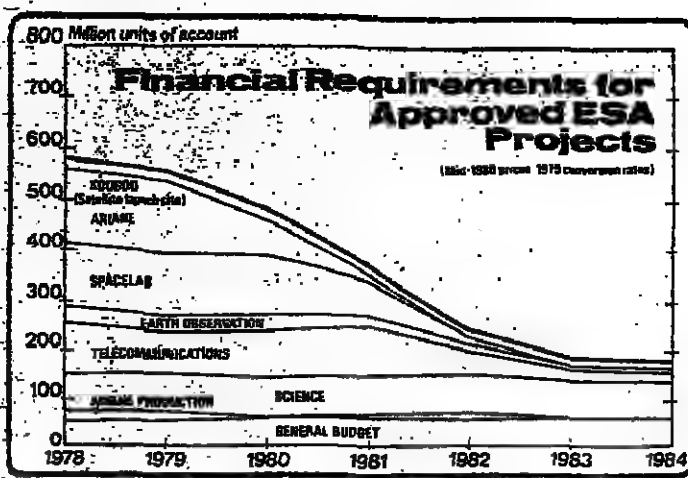
IT MAY seem a far cry from the peat bogs of Scotland to the sophistication of an orbiting satellite. But scientists at a research centre near Aberdeen are making good use of the high-powered cameras of one space research programme of the U.S. National Aeronautics and Space Administration, in mapping the peat resources of the Highlands and Islands.

The Macaulay Institute for Soil Research, an Agricultural Research Council laboratory, is buying photography on magnetic tape obtained by NASA's Landsat programme of earth resources surveillance. They use this colour imagery to guide their own diggers in light aircraft. Their aim is to compile a data bank on an underexploited energy resource. A pity, this peat data bank has been christened MIDAS—Mira Information Data Acquisition.

Rarely can space research activities seem quite so down to earth as in their use in remote sensing of natural resources—unless one counts the cremation of NASA's Skylab when it re-entered the atmosphere prematurely last month. But space activities which only a decade ago seemed remote from daily life are already familiar enough to be easily overlooked; for example, the trans-Atlantic telephone calls via satellites, distinguished by their slightly disconcerting pauses, and the nightly "met-cast" pictures of Britain's weather report on BBC television in recent months.

Meteosat-1, Europe's contribution to two international meteorological research programmes—the World Weather Watch and the Global Atmospheric Research Programme—was launched into geostationary orbit late in 1977. This satellite, designed by the European Space Agency to serve the specific needs of Europe's meteorological offices, is one of a family of five spread along the equator, the others being provided by the U.S. (2), the USSR, and Japan.

Its data processing centre is at Darmstadt, West Germany. Meteosat-1 has three main missions. First, it is imaging the earth's surface and cloud cover simultaneously in three spectral bands at intervals of 30 minutes, using its telescope radiometer. Second, the satellite itself disseminates the images and other data from Darmstadt to the more remote meteorological offices. Third, it gathers environmental data by UHF



radio from ships, buoys, etc. and relays it back to Darmstadt. Initial performance has delighted the meteorologists and provided them with novel views of the earth's atmosphere—such as regular photographs of the moisture content of the entire atmosphere.

Currently the biggest sector of spending by the European Space Agency (ESA) is on Spacelab. This is the manned space laboratory Europe is building to be carried into orbit by the U.S. Space Shuttle, and unlike Skylab—to be retrieved and brought back for refitting after up to a month in space—Spacelab is a pressurised laboratory module about 4 metres in diameter and up to 2 metres long within which two scientists will be able to work in a "shirt-sleeve" environment. In addition, the satellite will be able to tow up to five "pallets" carrying larger instruments.

The first Spacelab payload—originally scheduled to be flown late in 1980, but likely to be delayed by problems with the Space Shuttle—has been designed as a multi-disciplinary laboratory concept.

From more than 2,000 responses by scientists to the invitation to design experiments for Spacelab, a total of 78 were chosen by ESA and NASA in 1977. They include physiological experiments on the scientists themselves, such as studies of space sickness, a condition which has interfered with earlier space missions. It may be possible to find motions which counter any inclination towards space sickness on the part of a crew member.

Also aboard for the first flight will be a self-contained materials science laboratory, designed to perform 37 experiments in crystal-growing and the properties and behaviour of materials under gravity-free conditions. Whether or not the results suggest ways of refining more perfect materials, as space enthusiasts often suggest, they should certainly shed much light on the dynamics of materials during the formative stages of the earth and other planets, and of the earth's oceans and atmosphere today.

ESA is also building an orbiting X-ray telescope called Exosat, to investigate cosmic X-ray sources well beyond any interference from the earth's environment. It is designed to be placed in a highly eccentric orbit with an apogee of 200,000 km, so that it can accurately measure the size and structure of X-ray sources deep in space.

Scientifically, the project is a collaboration between 10 research teams in Britain, Holland, West Germany and Italy, together with ESA itself. But for the first time in an ESA/ESRO programme, ESA is financing and managing the scientific payload comprising two identical imaging telescopes, an array of proportional counters, and a spectrometer for studying detailed features of the X-rays. This arrangement arises because Exosat will be essentially an ESA observatory, feeding data to many scientists outside the 10 groups participating directly. The satellite is scheduled to be ready for launching in 1981, either by ESA's own Ariane or by a Thor-Delta launch vehicle.

Europe is also participating in NASA's most ambitious scientific project in space "still too many promising but unexplored technical options." Many of these have been outlined by Dr. Glaser himself, most recently late this spring at the 16th Space Congress at Cocoa Beach, Florida, close to Cape Canaveral. He claimed that the long microwave "cable" to earth could be at least 55 per cent efficient, with the prospect of improving to 70 per cent. He also claimed that the lifespan of an SPS would be at least 30 years—possibly 300 years.

As he envisaged his "reference design" of SPS, it would consist of "solar sail" in geostationary orbit, focused on a microwave aerial on the ground. Sunlight would be harvested by a rectangular array of silicon or gallium arsenide solar cells, measuring an astonishing 10 km by 5 km. The solar cells would produce direct current, which would be converted by microwave of a wavelength of about 10 cm—chosen to minimise radio-frequency interference on earth. These would be transmitted from a flat circular aerial about 1 km in diameter. To allow for the spread of this microwave beam on its long journey, the receiving aerials would be ten times the diameter of the transmitter.

Some idea of the scale of operations required if the SPS should be accepted as a U.S. national power production project was also offered by Dr. Glaser. To assemble the huge engineering structures in space, the project would need not only an advanced version of the Space Shuttle scheduled to make its debut in the coming months, but also the development of a large "space freighter." This craft would be capable of orbiting a payload of up to 500 tonnes, as is Boeing's proposed heavy-lift launch vehicle, for example. In effect this would be an orbiting warehouse, stocked with the construction materials and such machine tools as automatic beam welders. He envisages a construction team of 550—small by terrestrial power station standards but still very large by any standard of space activity. Ten launch sites for shuttles and space freighters would be needed to put this team into orbit and keep it serviced. Once assembled, however, it is envisaged that the

astronomy, the space telescope, a 2.4-metre aperture instrument designed to be carried aloft by the Space Shuttle. Scientists believe that the space telescope, designed for a 15-year life, will dominate space astronomy for the rest of the century. It will be accessible by Space Shuttle for repair and maintenance, and if necessary will be brought back to earth for a major overhaul. Thus the telescope will be kept at the forefront of scientific technique, just as if it were a terrestrial observatory.

The Space Telescope is scheduled for launch in 1983. In return for its work on some of the instrumentation and the solar power system, ESA is guaranteed 15 per cent of the observing time available. As it points out, this share exceeds the entire clear dark time available on a ground-based telescope. The space telescope is expected to offer astronomers an order-of-magnitude improvement in sensitivity, resolving power and spectral range over present-day instruments.

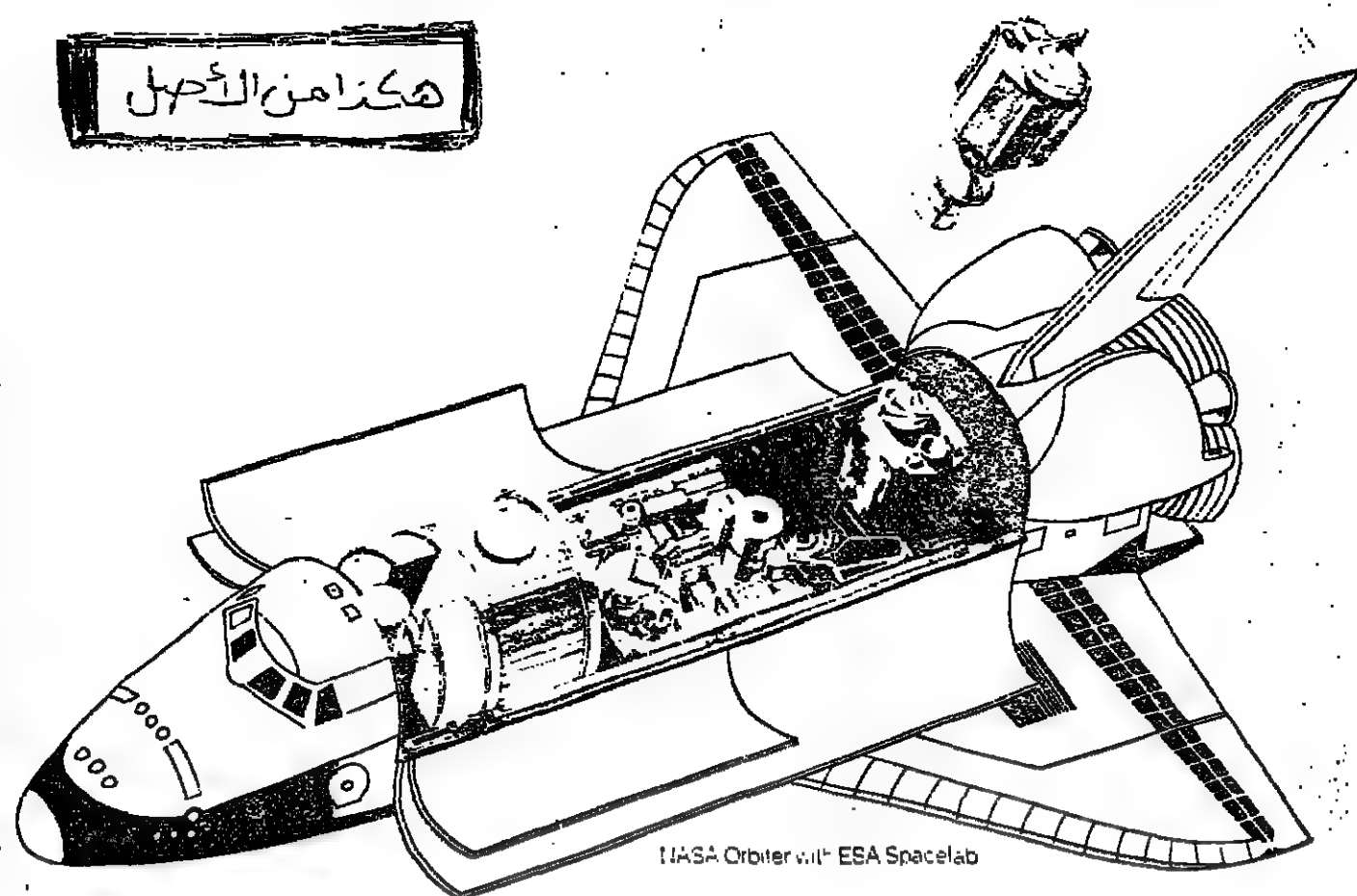
ESA, in its present form, came into existence in 1975, when the original ten member states voted that the new agency should take over the rights and obligations of two precursor organisations, ESRO and ELDO, and responsibility for the Ariane launch base at Kourou in French Guiana. At present its budget, as can be seen from the accompanying curves of financial requirements for approved programmes, is distributed heavily towards the development of an independent European launch capability, and the application of space, especially to telecommunications. But Mr. Roy Gibson, ESA's director-general, has said that ESA is "intent on preserving and if possible expanding its scientific programme, and there are indications that ESA member states will support such an expansion."

A recent survey of financial planning by ESA suggests that an annual budget of 480m Units of Account would result in good continuity in European programmes. If this were to fall to 420m Units of Account, however, ESA would have to reduce its space activities considerably.

David Fishlock  
Science Editor

## Room for Rent.

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NASA Orbiter with ESA Spacelab

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MCDONNELL DOUGLAS

## Power stations in space

IN AN office in Cambridge, Massachusetts, a decade ago a British-educated engineer warned to his theme that the development of solar energy was "the most sophisticated way we can use energy." The popular view, said Dr. Peter Glaser, is that solar energy is free and all we have to do is to catch it. In fact, even quite simple uses such as solar stills are very difficult to design satisfactorily.

Today Dr. Glaser is regarded worldwide as the chief proponent of the most ambitious of all schemes for harvesting solar energy. If President Carter's declared goal of obtaining 20 per cent of the U.S. nation's energy directly from the sun is ever to be realised, it is likely that a large proportion must come from the solar power satellite.

The solar power satellite (SPS) would be geostationary satellite—that is, placed high enough to remain above the same spot on the earth's surface, as for example telecommunications and broadcasting satellites must do. Its acres of solar cells would be constantly illuminated by the sun. The electricity (direct current) generated would be converted to microwave frequency so that it could be beamed 23,000 miles back to earth. Here it would be caught by great "radio-telescopes"—and converted into low-frequency alternating current to enter the national electricity grid.

Dr. Glaser, now a vice-president of Arthur D. Little, the engineering consultants, developed this idea from work his company was doing at the start of the U.S. space programme on the thermal properties of materials in space. He built a solar furnace, to generate very high temperatures, but became frustrated by the fact that the sun would not shine for long enough

to get things done. In 1968, he put forward on behalf of his company a tentative scheme for the SPS. Slowly, as the U.S. space programme has declined in public and political interest, the SPS concept has matured into a study, with \$5.6m of U.S. Government funding allocated for 1980. But a Bill before Congress aims to raise this to \$25m, and the "windfall" tax on U.S. oil companies may provide still more generous funds.

The present goal of the SPS enthusiasts is a prototype SPS designed to yield about 5,000MW of electricity—more than any thermal power station on earth today. The cost, according to the U.S. National Aeronautics and Space Administration, is currently put at about \$25bn—the cost of the Apollo programme to put a man on the moon.

As might be expected, the U.S. aerospace industry is enthusiastic about the idea, not least because if successful it would represent a tenfold expansion in man's use of space, for one single purpose. Such companies as Boeing Aerospace, Grumman Aerospace, Lockheed Aerospace, Martin-Marietta Aerospace and McDonnell Douglas are all figures in the Sunset Energy Council, the Washington-based organisation headed by Dr. Glaser, which aims "to foster the development of solar power satellites for the purpose of providing an inexhaustible energy source for the public benefit."

The American Institute of Aeronautics and Astronautics has concluded that a level of spending of about \$30m a year for the next five years would be appropriate for advancing the technology to the point where a firm design for a prototype SPS might be attempted. At the moment there are, it says,

"still too many promising but unexplored technical options." Many of these have been outlined by Dr. Glaser himself, most recently late this spring at the 16th Space Congress at Cocoa Beach, Florida, close to Cape Canaveral. He claimed that the long microwave "cable" to earth could be at least 55 per cent efficient, with the prospect of improving to 70 per cent. He also claimed that the lifespan of an SPS would be at least 30 years—possibly 300 years.

As he envisaged his "reference design" of SPS, it would consist of "solar sail" in geostationary orbit, focused on a microwave aerial on the ground. Sunlight would be harvested by a rectangular array of silicon or gallium arsenide solar cells, measuring an astonishing 10 km by 5 km. The solar cells would produce direct current, which would be converted by microwave of a wavelength of about 10 cm—chosen to minimise radio-frequency interference on earth. These would be transmitted from a flat circular aerial about 1 km in diameter. To allow for the spread of this microwave beam on its long journey, the receiving aerials would be ten times the diameter of the transmitter.

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SPS would be operated by remote control from the receiving points on the ground.

Not surprisingly, there are plenty of sceptics and even dedicated opponents of the SPS. One objection comes from those opposed to all centralised control of electricity, whose attack hitherto has focused particularly on nuclear power as the new source of centralised energy. They are raised by those who see it intruding in new and not necessarily benign ways into man's environment. The main inefficiencies—conversion of sunlight to electricity and its subsequent conversion to microwaves—stay far out in space, so "thermal pollution" is well away from the atmosphere. But problems could still arise from the microwave beams, not least if their focus should shift from the receivers on to a city. Moreover, the rocket exhaust from the immense number of space launchers from the ten launch sites could well introduce new atmospheric pollution problems.

Dr. Robert Froesch, administrator of the National Aeronautics and Space Administration (NASA), was sufficiently wary of the SPS concept to quash any idea of lobbying on NASA's part for an early start to the project. In Europe a few months ago to discuss progress on the Space Shuttle, Dr. Froesch admitted that he was "rather sceptical" about several aspects. He wanted to know more about the engineering problems, the environmental effects and, above all, the economics.

"I certainly don't understand the economics and I'm not sure that those who talk about it do," NASA's current estimates, he said, suggest that electricity from an SPS would be no cheaper than an equivalent amount of nuclear or coal-fired plant, even though the fuel would be free. And the project would have the disadvantage of requiring all its capital at once, for a very large tranche of electricity. Figures NASA has been conjuring with are \$50bn to set up the project and another \$25bn to build the first SPS. But even these figures made such assumptions as solar cell efficiencies of 17 per cent—and we've barely done that in the laboratory."

David Fishlock



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## THE ARTS

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## Television

## Out of a summer sky

by CHRIS DUNKLEY

Having roundly berated the broadcasters not once but twice recently for the trashiness of their summer season and the absence of fresh material—and indeed anything really worth-while—it is only fair now to acknowledge that the hiatus appears to be over.

True, the quality of some of the new programmes which have started reaching the screen all of a sudden leaves a lot to be desired; they would not qualify for the competitive standards of the autumn schedules. However, the sheer quantity is quite impressive, especially from ITV which over the last fortnight in addition to a collection of new midweek series has produced something like a brand new weekend schedule.

The most significant contribution to it so far has been *Gossip From The Forest*, the first in a series of Granada plays under the umbrella title "Screenplay." It was a long, rather slow, minutely observed drama about the men who signed the armistice in a railway carriage parked in a siding in the forest of Compiègne in 1918.

The director was Brian Gibson, a man whose credits read like a register of award winners: *Joey, Hospital 1922, Where Adam Stood, Billion Dollars, Bubble, Dinner At The*

*Sporting Club*, and *Blue Remembered Hills* have all been outstanding productions. *Gossip From The Forest* was not one of his best, but since a middling Gibson film is vastly superior to anything else in a normal month's programmes, it was well worth watching. Moreover I suspect that television viewers will lose Gibson to the cinema sooner rather than later, just as they have lost most of the efforts of Ken Russell, Jack Gold, and Peter Watkins. So all Gibson's television material is worth savouring.

Like so much of his work, *Gossip From The Forest* evoked a strong and moving atmosphere, particularly in the opening half-hour, as the delegates moved slowly through mud and endless rain to their rendezvous. Gibson's rain is so wet and his forests so woody that one begins to wonder whether there is a mad or a dazed somewhere in the family.

One of his greatest achievements in this film was to convey, without any overt reference to the subject, the way in which lack of magnanimity in victory on the part of the French and British contributed to the move towards a second world war. Hugh Burden was a memorably intransigent Foch.

The same company's *Maryport* ought to have been another work to relish since its makers also have impressive records: producer Denis Mitchell is renowned for *Morning In The Streets* and other documentaries, and Ray Gosling, his partner in a sub Socratic dialogue, has made some of the most telling contributions to the modern journalism-of-the-cities.

Sure enough there was a sharp poignancy about their study of a moribund coastal town on the Solway Firth. But it was spoiled by Gosling's periodic naivety, as when he said Maryport had a "human quality" (which town hasn't?) and that it is a one-class town (the fishermen and the Lord of the Manor's agent proved otherwise in their interviews) and that "the quickest way to get a thick ear in Maryport is to call the place a dump" (unlike which other town?).

As an investigation it lacked rigorously, and as a portrait it lacked breadth. It certainly had atmosphere but who, given Mitchell's camera and Mitchell's budget, could fail to get atmosphere out of a decaying historic seaside town?

Granada's third offering, *This England*, was a fascinating little programme about deaths in the long running soap opera *Coronation Street* and public

reactions to them. It would have been even better if it had allotted slightly less time to one character (Ernie Bishop) and slightly more to the others, such as Martha Longhurst who was written out 15 years ago.

London Weekend Television has contributed two new comedy series to ITV's summer spasm: *Cannon And Ball* and *Doctors And Nurses*. The first is a conventional half-hour slot for a pair of stand-up comedians who are quite a lot more entertaining than some we've seen on television. In particular, the duo (the staff are all played by children) your real name? No it's really Flora Margarine but I don't like to spread it around) who is the little one (on the day that two comedians of the same size team up the world will end) has one of those smiles which make you laugh for no reason at all.

However, the absence of *Morecambe and Wise* becomes more noticeable as time passes, and with the two Ronnies also off the screen the sense of watching the third eleven have a go is very powerful.

*Doctors And Nurses* takes the dramatically simple idea exploited in "Bugsy Malone" and transfers it to a hospital; the staff are all played by children. In this instance there are some adults, though if Episode 1 is a fair guide they will act mainly as the butt of jokes. Since it delights children to see the tables turned and adults being patronised this detail makes the series ideal for its Sunday tea-time slot. Furthermore, 15 minutes is exactly the right length.

We do not have the space here to go into all the baroque intricacies of the joke in which the surgeon in the operating theatre calls for

"Spencer Wills clip!"

"Mop!"

"Two-pound hammer!"

but that and the piggy bank pieces in formaldehyde were

cherishable gags. *ATV's* series *Jack On The Box* has a TV Times entry which is just a teensy bit pretentious: "The comic novelist eccentrically pursues his lost love Maggie through a series of six films." All too often Jack Trevor Story looks—as he ascends with seemingly unwitting allegory in a hot air balloon, or rolls out of bed for the camera—as though he is trying just a little too hard to live up to the billing.

On the surface it is a meandering, undisciplined, discursive, episodic, indulgent, plaintive, pathetic self-pitying series but underneath all that it is profoundly self-satisfied.

Watching it is a small habit-forming indulgence akin to picking the teeth.

Another new ATV series has a title which, for reasons best known to the producers, has been chopped down from writer Leslie Thomas's funny and explanatory *Tropic Of Ruislip* to the unfunny and confusing *Tropic*. Sex and social climbing in the dormitory suburbs is a rich area for comedy, but if this series cannot do better than to have the vicar complain "What with the pill and women's deep seated urge for a second car there's very few Christenings these days" then it will not expect to rank among the all-time great television comedies.

One thing very much in the series' favour, however, is that *ATV* has given it no laughter track. In this it is following a recent trend (which will please correspondents who write me more letters of complaint on this subject than any other except pronunciation) which now extends to *Thundercloud* as well as *Tropic*.

The most enjoyable BBC programme of the week was *The Great Tiger Moth Air Race*. Being a very straightforward, completely unpretentious record of the gathering together and "racing" of 55 old Tiger Moth biplanes from Hatfield to Strathallan, it must have presented producer Bernard Clark and director Laurie Choat with an extraordinary logistical problem. Yet somehow they seemed to have a camera crew on the ground to greet the astonishing little aircraft as they came in to land at every intermediate stop along the course.

There was some glorious footage of English countryside with the bright and boxy aeroplanes—like something that had chattered in from an animated cartoon—in the foreground. But the real attraction of the production came from the enjoyment and the camaraderie of those involved.

In this respect is brought to mind two other odd enjoyable programmes, both musical: *The Great Double Bass Race* about an astonishing rally in the Isle of Man, and *Nymphs And Shepherds* in which the original members of the children's choir who had made the famous record were re-assembled as adults.

The common denominator is a fond and shared obsession and nothing makes for better television.

## Festival Hall

## Gala Ballet Season

by CLEMENT CRISP

The week of pirouettes and fouettés which started on Monday at the Festival Hall might well pass itself off as "All you ever wanted to know about classical ballet and didn't like to ask your doctor." It is an omnium-gatherum of choreographic clichés, redeemed by a couple of exceptional performances, and trading heavily upon the assumption that if they spin hard enough they must be worth watching. There are dwarfish approximations of *Swan Lake's* second act and the final scene of *Sleeping Beauty* framing a grab-bag of solos and duets, in which are to be found Martine van Hamel, Galina Samsova and Peter Schaufuss as jewels amid the paste.

Miss van Hamel, whom we saw with American Ballet Theatre a couple of years ago, is a joy. She is the Odette of the evening, discreetly partnered by Kevin McKenzie, and her serene, creamy style argues an interpreter deserving of far better things than the surroundings in which she finds herself. Her beautiful line, her musicality, the respect she shows the choreography, are a pleasure to watch, and two other items in which she appears confirm her as an artist of exceptional quality. In Lynn Seymour's jokey *Tutuworld Lady* she offers us a sleazy corner of the Weimar Republic (Weill tunes from the *Dreigroschenoper*; lubricious antics in a bar); but best of all she performs Lar Lubovitch's *Skrjabin Dances*.

These look like a tribute to Isadora, and Miss van Hamel pours into them glories of long-pulsed, ecstatic dancing of the greatest beauty. The first of these three *Skrjabin* piano studies seems done in a single magnificent phrase; the other two are no less compelling as she rushes, or pauses, filling each with dancing rich in tone, subtle in rubato. She is an artist to treasure.

Galina Samsova is seen as the Aurora of the evening, and also returns in her special version of *Le Corsaire*. In both, the sensitivity of her dance style, its sweetness and generosity, the lovely simplicity of her arms, take one far from this trumpery occasion to a region of noble eloquence of expression. In *Beauty* Kevin McKenzie displayed a clean, unaffected style; in *Corsaire* Peter Schaufuss, not well



Martine van Hamel in "Tattooed Lady" Leonard Brit

matched with Samsova, could still show a brightness of virtuosity that told of true classic understanding. For the rest, Marina Gilead Morishita and Tetsumaro Shimizu did what they did as powerful, idiomatic advocates of the curried tosh of Bejart's *Don Quixote's* duet.

## Stratford auditorium plan shelved

A £600,000 plan to give the Royal Shakespeare company a third auditorium at Stratford has been shelved—because the company can't raise the cash. The new auditorium, which was to be converted from the shell of the burnt-out Memorial Theatre, was scheduled to open in November. The opening production of the new auditorium was to have been *All's Well That Ends Well*, with Judi Dench and Peggy Ashcroft. This has now been postponed.



Hugh Burden in "Gossip from the Forest"

## Albert Hall/Radio 3

## Carter, Lutoslawski

Monday night's three-part Prom was divided between three living composers from three different countries, Elliott Carter, Witold Lutoslawski and Michael Tippett. Tippett's *A Child of our Time* dates from the war years; but the works by Carter and Lutoslawski were both recent, composed respectively three and four years ago.

Elliott Carter's *Symphony* for three orchestras has been reviewed already on this page, after its premiere in New York in 1977, and after its first British performance last March. Both my colleagues have remarked on the richness and (for Carter especially) the sensuous and dramatic quality of the score—and on its complexity. Even after three hearings, this short but exceptionally dense canvas, a tracery of scurrying melodies and shimmering colours, does not offer up its inner life easily. Crumb's *Star Child*, heard at last Friday's Prom, puffed up perhaps five or ten minutes' worth of ideas into the space of 40 minutes; in his *Symphony*, Carter seems to have com-

pressed the seeds of an hour of music into one quarter that time.

Compressed; but for all that, given free rein to a poetical vision whose textures and dramatic curves are not difficult to perceive—the very speed at which the detail of the argument flashes past forces the attention to the broad surface and line. The scene changes taken individually, like frames of a film, are breathlessly fast; but seen through half-closed eyes they blend, give an impression of space and distance. Sometimes they hover, almost out of sight, at bird's view; at other times they rush close like driven clouds.

The final pages are perhaps still the most satisfying: from its highest point the piece takes breath, falls in a series of powerful plunges, the last a dizzying dive into darkness and silence. The BBC Symphony Orchestra's performance under David Atherton has gained much in strength and confidence in four months—and by happy chance they have even found

in their own ranks a young trumpeter who can give with perfect confidence the opening solo which last March the principal trumpet found too difficult to play.

Lutoslawski's *Les espaces du sommeil* is a setting for baritone and orchestra of a poem by Robert Desnos. It is a nocturne which makes its effect (in vivid contrast to the Carter) with simple, economical brush-strokes of colour—a patter of pizzicato strings; a curl of flutes; and always a profusion of characteristically swirling shapes, of flute and clarinet, celesta and harp, underpinned by dark string chords. There is a busy and vivid climax, from whose last thunder-clap the solo voice (rather predictably) emerges floating still and plaintive. A pretty, civilised piece that offers the reassurance of recognisable character, secure technique, and few surprises. One only perhaps, the quiet close to the music, like that of the poem is, briefly, and unexpectedly, disturbed.

DOMINIC GILL

## Theater des Westens, Berlin

## Wie einst im Mai

Following the box office success of *Cabaret* (an average thousand visitors a performance), Karl Vebach brought back the tradition of Berlin Operetta to the newly renovated and reopened Theater des Westens. The public throughout Germany has waited so long for a revival of Walter and Willi Kollo's *Wie einst im Mai* (Once in May) that the production will probably run the entire summer to accommodate the season's tourists. It could even turn out to be one of West Berlin's biggest commercial hits.

It is not well enough known that, back at the turn of the century, Berlin stood just behind Paris and Vienna in the field of operetta. The magnificence of Jacques Offenbach and Johann Strauss was never equalled, but three composers—Paul Lincke (*Frau Luna*), Jean Gilbert (*Die heusche Susanna*), Walter Kollo (*Wie einst im Mai*)—did match their contemporaries as a trio of diverse and complementary talent. Hopefully, the Theater des Westens will produce all their important musical compositions in the not too distant future.

Once in May first appeared as a *Passé mit Gesang* in 1913, a

farce with some songs added by Walter Kollo. The original sketch by Schaefer and Bauer, dealing with the history of the city itself in the fate of two families in the age of the locomotive—the public loved it! Years later, 1924, Walter and Willi Kollo, now a father-son team, collaborated for the first time on an operetta, *Marietta*, for the Metropol Theater, and this in turn laid the groundwork for a new, operetta version of *Wie einst im Mai* in 1943, shortly after the father's death. Following the war, in 1966 and 1978, a few *Staatstheater* in Braun-schweig and Lübeck attempted to stage the show with limited personnel and as much success as musicals and operettas require a special kind of care and breeding to be at all successful.

There are several reasons why Berliners are flocking to the Theater des Westens. One is a tribute to the old city in its heyday; there's the Potsdamer Bahnhof in 1838, when the first locomotive rolled down the tracks; the plush manor-house of the Baron von Henckshofen, whose lovely daughter falls in love with a lowly railroad engineer (later to emigrate to America and mass riches while the Baron's

fortune heads for ruin); the splendid ballroom of the "Kroll-Oper", where the daughter is to be married with a blue-blooded wastrel; and a garden-swing in May, supplying the motif for a nostalgic love story that spans three generations. Another is an ensemble of musicians and performers gradually learning the ropes in blending acting, dancing, and singing in a unified whole. Vebach is still learning too heavily on names and gimmicks to draw a crowd, but Angela Mithel and Wolfgang Ziffer (as Otilie von Henckshofen and Fritz Jüterbog, the ill-fated pair) are natural and unassuming in letting the story tell itself without the usual upstaging common to musicals in subsidised theatres. They simply make the show work.

The high point of the evening is a song: Walter Kollo's "Das war in Schöneberg im Monat Mai"—a Berlin chanson every old-timer here can sing by heart since first heard in 1913. One year before, in 1912, Kollo composed the popular "Unter'n Linden, unter'n Linden" and the operetta it appeared in, *Filmzauber*, ran non-stop for over 200 performances. He became the city's troubadour.

RONALD HOLLOWAY

## Open Air Theatre, Regents Park

## Overruled

I rather wish that Christopher Biggins, who directs this arch trifle of Bernard Shaw, would issue his actors with loud hailer. There really seems little point in going as far as he does to contradict the natural setting—gulls and crashing waves on sound effects to establish that we are on the terrace of a seaside hotel in this luncheon production—without going even further. When you hear so feckless a line as "It's so jolly to be reckless" pumped out by Philippa Gail, the laughter derives from relief at hearing a full sentence, not necessarily from recognition of a witty quip.

That said, Mr. Biggins does very well under the ridiculous circumstances. The trivial involves two married couples who have exchanged partners in the time-honoured custom of ship-board romance. Desmond MacCarthy complained that the 1927 Everyman production took little account of the comedy's artificiality. He would not complain on these grounds in Regent's Park; the square dance is briskly entered upon and the performances, especially that of Robert East as the worldly, flirtatious moralist, Gregory Lunn, are admirable.

Geoffrey Colville is unusual casting for the role of a romantic Englishman for whom passion is nothing without guilt. And, as his temporary lover, Jo Ross contributes a grotesque *ballet* that will be all the more effective when she learns not to tread on her own dress. There can be only one upshot of such civilised buffoonery, a shared table at dinner. En route, there is a goodly profusion of sharp mots on the subject of married life, and Mr. Biggins is not slow to point up CBS's pertinent remarks on the hypocrisy of those who invoke moral principle as an excuse for actual conduct.

MICHAEL COVENEY

## The Lunatic, the Lover and the Poet

Owing to the public demand for this entertainment after its successful tour of Australia earlier this year, the Old Vic company is presenting a special Sunday performance of *The Lunatic, the Lover and the Poet* by Jane McCulloch with Derek Jacobi and Julian Glover on August 5. After this performance, directed by Tony Robertson, the two stars leave Britain for an international tour of Hamlet.

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Wednesday August 1 1979

## Sterling and the CBI

THE VERY SHARP correction in sterling in the currency markets yesterday actually provoked a small rally in the equity market. Investors are now well aware that sterling's long, steep rise has taken it too high for the comfort of any industry exposed to foreign competition, and any relief from the seemingly remorseless squeeze on profit margins is therefore welcomed. The latest survey of industrial opinion from the Confederation of British Industry shows that industrial managers have also become sharply aware of the challenge of a strong exchange rate, and reflects considerable gloom about the short-term outlook.

## The risks

It is notable, however, that the CBI in its economic assessment does not call for any change in Government policy to relieve present pressures; and indeed substantial relief still seems unlikely. The present correction is welcome not because it promises an easy environment for industry, which it does not, but because it may reflect the end of a phase of unhealthy speculation against the dollar. Such movements tend to gather an excessive momentum as investors' expectations become self-justifying. The correction yesterday in fact only cancelled about the last two weeks of a sterling-dollar movement which has been going on for some months, but it is a large movement in one day, and may be enough to remind market participants of the risks of following a trend too far. The market may now be more rational.

## Awkward corner

This is very important for sterling in particular, because the pound is peculiarly exposed to changes in sentiment about the dollar. Because of our inflationary problems, the UK monetary authorities are much more reluctant to intervene in the exchange markets than those in other strong-currency countries. This makes the value of sterling far more responsive to any flight from the dollar than the value of other currencies. If a new chairman of the Federal Reserve Board, highly respected among international bankers, and an improvement in the US balance of payments in the long-run forecast recession at last seems to have combined to stabilise the dollar, then the British authorities

may be relieved of a potential dilemma.

The nature of that dilemma is made clear by the CBI survey. The UK economy is at present rounding an awkward corner. The Government has embarked boldly on tax cuts, but is still struggling to get expenditure under control. At the same time real incomes and the demand for consumer credit reflect the strong recovery from last winter's disruption, and the gap in time between excessive wage settlements and the resulting price increases. The result is an excessive demand for credit, high interest rates, and very weak current account of the balance of payments. At a time when the dollar has been weak, this has had the paradoxical result of accelerating the rise in sterling and redoubling the pressure on profit margins already imposed by high wages.

## Fundamentals

These pressures will be much more easily sustained if the flight from the dollar now abates, and if credit demand in the UK—especially consumer credit demand—falls, as is expected, to a more normal level within the next few weeks. If these conditions are not fulfilled, and crowding out and dollar panic persist, the Government's fiscal policies may need to be re-examined. As we have argued since the Budget, a public sector financing GAP of over \$3bn does pose risks if private credit demand is strong.

However, a small change of course will not alter the fundamentals: a determined policy of monetary restraint, in an economy which is now self-sufficient in oil, is bound to produce a strong exchange rate. That is why the CBI, which supports the Government's monetary and economic objectives, is right to argue that the UK must find the answer to the challenge of a strong rate, by checking the rise in unit costs. That is why the winter wage round will be the crucial test; it will establish whether the monetary brakes on inflation can operate without widespread and destructive friction. In these circumstances the grim realism of the CBI survey is more promising than any easy optimism. The greater realism on both sides next winter, the less painful will be the withdrawal of symptoms from a decade of inflation.

## The leadership of India

INDIA IS an immense and diverse country which, somewhat like the United States, looks to its head of government for strong leadership. The sharp communal divisions between Muslims and Hindus are matched by possibly even sharper conflicts between the multitude of Hindu castes and those 100m Harijans (Untouchables) who have no place in the caste system. The Hindi-speaking belt of the north holds in disdain the Dravidian peoples of the south. Bengalis, Marathis, Tamils and Gujaratis cling tenaciously to their regional languages and culture.

## Image

Jawaharlal Nehru was able to establish a sense of national identity beyond the particular claims of caste or religion by pressing the common cause of independence against the British. His daughter, Mrs. Gandhi, was "Rajaji" or Mother to many Indians during her Premiership. She created a reputation across India as champion of the interests of the poor and the minority communities. But as industrial unrest and political violence spread in 1974, she fell victim to the tempting belief that authoritarian rule would provide a quick, clear-cut solution to the complex economic and social problems that faced her. The Emergency merely pushed them under the carpet.

As Prime Minister, Mr. Morarji Desai, never managed to project an all-India image. He was a man of strong and often idiosyncratic beliefs, attentive to his own voice but a poor listener when it came to taking account of the views of others. After the surge of enthusiasm that carried his Janata party to power, he was unwilling to continue with that moulding of public opinion towards national ends that is needed in India. His Premiership collapsed in communal and caste strife, in industrial unrest and an unprecedented mutiny by the police.

Indians have good cause to be disgusted by the political squabbling now taking place in Delhi over the Premiership. By the standards of any democracy the horse trading going on as Mr. Charan Singh, the new

Premier, tries to enlist the support of Mrs. Gandhi, his former opponent whom he has attempted to put on trial on criminal charges is an abuse of democratic procedures. The comforting feature should be that the economy of India is basically in sounder shape than most Indians seem to think.

A favourable economic situation does not make up, however, for the absence of strong national leadership in a country now more conscious of its divisions than its success. There are a number of constants around which the more enduring post-war administrations have stood their ground. These include a determined policy of economic policy pitched left of centre to accommodate popular bitterness at disparities of wealth, and a federal structure that is sensitive to regional differences. After the failure of the Emergency, they also include a commitment to democratic institutions.

These constants of Indian politics increasingly point to Mr. Jagjivan Ram, now the leader of the opposition, as the man who will eventually take over the Premiership. He has held most of the senior posts of government in former Congress administrations and is acceptable to former Congress leaders who now hold the balance of power.

## Successor

Though the representative of the Harijan community, he is not so partisan in support of his immediate followers as Mr. Charan Singh has been of the prosperous northern farming community from which he gets his strongest backing. Mr. Charan Singh seems unlikely to survive the vote of confidence in Parliament due next month. Mr. Ram is an able administrator. He would probably have been Prime Minister in place of Mr. Desai in 1977 but for an unlucky turn of the wheel. He has been too long a manipulator in the Indian political game to be the most inspiring of successors. But many in Delhi expect him to emerge on top—and he is probably the most likely man around whom a national consensus can develop to carry India through its present crisis.



The Commonwealth conference risks becoming a dialogue of the deaf over Rhodesia. But there is some small room for hope . . .

## Glimmers amid Lusaka's gloom

THE Commonwealth conference that opens here today will be dominated by Rhodesia, and the air of resigned gloom hanging over the majority of the delegations during their arrival here suggests there is little cause for optimism about the outcome.

The Rhodesian problem has been around for so long, and its history has been so depressingly consistent. It is 18 years since the search for a long-term solution began with the 1961 constitutional conference. It is 14 years since Ian Smith's unilateral declaration of independence. During that period, there have been literally dozens of fresh initiatives, new constitutional proposals, and "last chance" solutions for Rhodesia. Every one has run aground on a rock labelled "too little and too late."

In the last seven years, the guerrilla war inside Rhodesia has built up from a few minor skirmishes to a situation where somebody is being killed every hour of the day. Already, it is estimated to have claimed 12,000 lives. Both in Whitehall and in the African capitals, there is a growing feeling that the war has acquired a momentum of its own and that a fight to the finish on the battlefield may be the only way that the last chapter of the Rhodesian story can be written.

Mrs. Thatcher and Lord Carrington, the Foreign Secretary, have arrived here with a clearly stated policy framework within which to launch yet another initiative. They believe that Mr. Smith's internal settlement and the elections which followed it last April, bringing Bishop Muzorewa to power, have created a new situation which must be built on, and they would like the Commonwealth to agree with this perspective.

Yet they have also come prepared to agree with Commonwealth criticism that the internal settlement constitution, which gives whites power out of all proportion to their numbers, must be changed. They will offer to press for a new constitution which would be broadly comparable with the one inherited by other former African colonies at independence.

They are coming here hoping for a constructive dialogue, ready both to listen and to learn, and ready to talk to anyone who in their view can help to resolve the issue. It is not ruled out that this process of consultation will include a meeting outside the framework of the conference with either or both of the Patriotic Front leaders.

Mr. Joshua Nkomo and Mr. Robert Mugabe.

But the atmosphere into which Mrs. Thatcher flew on Monday night is hardly conducive to constructive dialogue, there is deep hostility to her personally. On the morning before our Prime Minister arrived, President Kaunda of Zambia delivered himself of a highly personalised and public attack. But he was saying nothing more in public than African leaders have been saying in private. Then yesterday, the Lagos Government announced that it was nationalising British Petroleum's interests in Nigeria. The move appears to have been timed quite deliberately to coincide with the opening of the Commonwealth conference.

The root cause of this hostility can be traced to the simple fact that Mrs. Thatcher has always taken a far more favourable view of the Rhodesian internal settlement and of the April elections than did her predecessor, Mr. Callaghan.

But the Prime Minister has compounded her problems by a series of public utterances which have created great antipathy in Africa. The most important of these was her recent statement in Australia that she very much doubted whether the British Parliament would renew Rhodesian sanctions in November.

African leaders were furious. The remark appeared to them to confirm suspicions that Mrs. Thatcher had already made up her mind to lift sanctions and that she was merely delaying doing so until the Commonwealth Conference was over the way.

On an even more basic level than this, other remarks by the Prime Minister have led African leaders to the belief that Mrs. Thatcher, more than any other British Prime Minister over the past two decades, is unsympathetic to their problems, to their aspirations and to their fears. "She doesn't understand us, and we have to teach her what life is like in Southern Africa as it is," said one African leader. "That, expressed with varying degrees of rhetorical flourish, is the mood which has greeted her."

It will be a dangerous atmosphere, for Mrs. Thatcher has as strong a didactic streak in her as the Africans. The result could be a mutual attempt to educate the other in the realities of life which might merely end in mutual incomprehension and raised tempers.

If this does happen, it will be, above all, because Mrs. Thatcher—misreading a large body of British opinion—sees a totally

different reality in Rhodesia than do the African states.

Take one key example of this wide cultural and intellectual divide: the April elections. Mrs. Thatcher, and a substantial body of Tory opinion in Britain, saw the April elections in Rhodesia as a major breakthrough.

Bishop Muzorewa, a moderate leader who has never resorted to arms, won enthusiastic backing from a majority of blacks. The 64 per cent turn-out was higher than people had reason to expect. Journalists and official observers reported widespread enthusiasm for the electoral process and for the Bishop.

The Patriotic Front leaders, who were backed by Communist powers, had been invited to lay down their arms and participate, but had refused to do so. To a lot of people in Britain, Bishop Muzorewa acquired through that election a legitimacy that Ian Smith never had. Two former Foreign Secretaries, Lords Home and George-Brown,

By DAVID PALMER and MARTIN DICKSON in Lusaka

went on record as saying that the six principles which have formed the basis of British policy since UDI had now been met. Mrs. Thatcher has made a number of acid comments comparing the fairness of the electoral process in Rhodesia with the lack of democracy, as she defines it, elsewhere in Africa.

Seen from Africa, and the perspective of men who have been fighting for 20 years for the liberation of Rhodesia, the elections were a carefully stage-managed fraud. The constitution under which they were held was designed to retain white hands on the levers of power. Above all, both the elections and the constitution left a prominent role in politics for Ian Smith, now Zimbabwe-Rhodesia's Minister without Portfolio, and a man whom African leaders feel from bitter experience they can never trust.

In the African view, it was out of the question for the Patriotic Front to accept the Rhodesian invitation to lay down arms and take part in the elections. As they see it, it is the "freedom fighters" who forced Mr. Smith to make

concessions. The war must go on until he agrees to a genuine majority rule settlement which meets their definition of "free and fair." "Freedom" means to African leaders, liberation from white colonial rule. Rhodesia's constitution, drawn up by a regime in which Ian Smith was a dominant force, does not measure up to these standards.

But the danger that the dialogue between Mrs. Thatcher and the African states will turn into a dialogue of the deaf only adds a new and complicating dimension to an already intractable problem.

The only real solution to the Rhodesian problem is one which will also bring an end to the war. That would require the acceptance of all or most of the five front-line states, one or both of the Patriotic Front leaders, almost certainly of the Nigerians and of the regime in Salisbury. Within that long list, there are enough personal rivalries, long histories of distrust and mutual suspicions to abort the best-laid plans.

Last autumn, for instance, a meeting of the five front-line leaders broke up in acrimony. The Nigerians and the Zambians had engineered a secret meeting in August between Mr. Nkomo and Mr. Smith. Mr. Nkomo's fellow leader of the Patriotic Front, Robert Mugabe, voiced bitter suspicions both about Mr. Nkomo's ambitions and President Kaunda's role.

The Nigerian initiatives strained the friendship between President Kaunda and President Nyerere—and the Tanzanian leader in turn has little time for Mr. Nkomo. Relations between Tanzania and Nigeria, which had played a key role in the meeting, were for a time soured. The picture presented so far in this article is a gloomy one.

In the run-up to the Lusaka meeting, Mr. Malcolm Fraser, the Australian Prime Minister, has taken on himself the mantle of honest broker, trying to work out a compromise formula which can be accepted at Lusaka.

However, his talks in Lagos at the weekend with General Obasanjo, the Nigerian leader, appear to have produced no

softening in the Lagos Government's hardline stance. Only hours after Mr. Fraser's departure, the Nigerians moved against BP.

There are, however, some other straws in the wind. It is just possible that the multi-racial Commonwealth of nations will cut through the rhetoric, will break down the distrust and mutual misunderstanding that has haunted Rhodesia for so long and will emerge with an agreed compromise approach to a fresh initiative. Here are some of those straws which people are grasping—more in hope than expectation.

● The survival of the Commonwealth. The Queen's tour of Africa, Commonwealth states ending with a rapturous reception in Lusaka, has once again illustrated the links tying Britain's Head of State (as opposed to Britain's Government) to the Commonwealth, and the Commonwealth states to each other. There is a tangible desire to hold the institution together, and a recognition by all members that Rhodesia could tear it apart, or even lead to Britain's expulsion.

● The position of Bishop Muzorewa: there are signs that the positions of London and the African states are moving from opposite poles to some kind of common ground. In the rhetoric of the front-line states, the Bishop is the stooge of Ian Smith, a man who has sold out to the enemy and he is held in contempt for having done so.

In London and Washington, existing doubts about Muzorewa's political capabilities have increased since his visit to the U.S. and Britain last month. In June he was being talked of as the instrument by which the UK Government could bring about changes inside Rhodesia, most notably by persuading his Cabinet and country that the present constitution was unacceptable to world opinion.

But during his visit to London he told some people that he had not the power to deliver what was being asked of him. He left the impression that Ian

Smith is still wielding far more power behind the scenes in Salisbury than had earlier been thought, particularly in the conduct of the war.

● Disillusion with the Bishop may be a rather negative area of common ground from which to launch an initiative, but at least it is common.

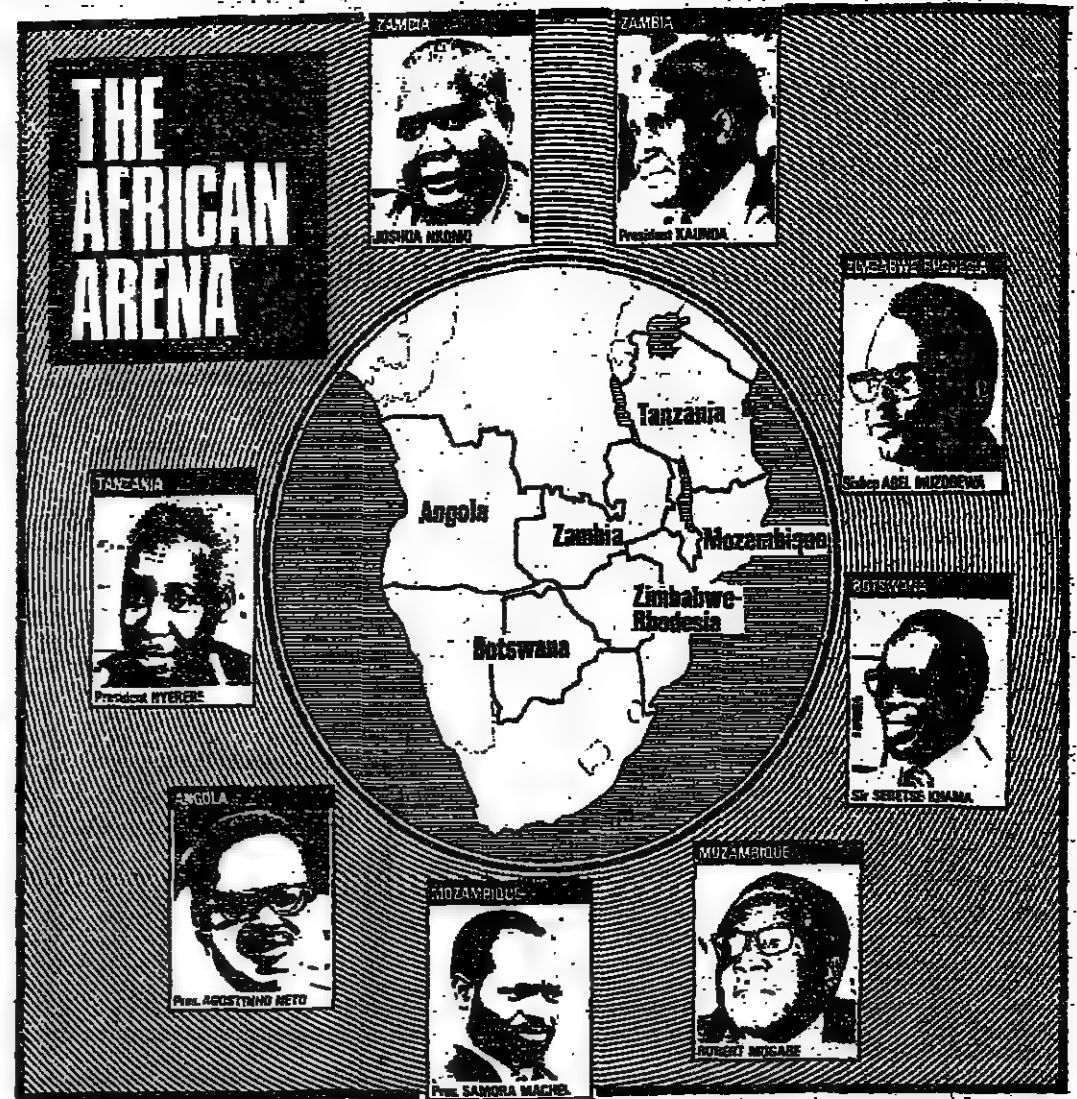
● The economies of the front-line states: these states are paying a high price for what they see as their stand on principle. The economies of Zambia, Mozambique and Botswana, the countries from which the guerrillas operate, are being devastated by the conflict with Rhodesia. Tanzania, too, has problems of its own to solve following its military intervention in Uganda which has proved a severe drain on the economy and is dominating much of President Nyerere's time.

The leaders of all these states need a settlement—but that does not mean that they are willing to sacrifice upon sacrifice over the years in their fight against Salisbury; they are about to capitulate now.

Among the front-line states, no one needs a settlement more than President Kaunda of Zambia, chairman of the Commonwealth conference and host to the meeting. His capital city lies less than 100 miles from the Rhodesian border; an estimated 12,000 of Joshua Nkomo's guerrillas are living in and off his country; the shops are without many basic commodities; the economy is lurching from crisis to crisis and Zambia is dangerously dependent on Rhodesia for its vital railway imports and export routes.

If this really is the "last chance" for an internationally negotiated Rhodesian settlement, there could be no more string venue for the Commonwealth conference. For the next eight days, representatives of the 39 nations will be viewing the Rhodesian crisis from the front line.

As Mrs. Thatcher will find, it presents a very different view from that of the last Commonwealth conference venue—London.



## MEN AND MATTERS

## Weeks takes the cake

Sir Hugh Weeks, now aged 73, was the star of yesterday's birthday celebration for 21 years of the CBI's industrial trends survey. He was chairman of the economic policy committee of the Federation of British Industry, as the confederation was then called, in 1958 when the survey was introduced. The CBI had baked a cake to mark the anniversary. Weeks blew out the candles.

He was one of the key industrialists in the FBI to the idea of forward planning for private industry—an idea that emerged somewhat bruised by Maudling's aborted dash for growth. The survey was part of the same experiment, having been started when the Board of Trade asked the FBI for information about industrial performance, and the FBI had none to give.

Yesterday, after he had blown out the 21 candles, Weeks reminisced about how the original surveys only published the present position reported by

companies, for fear the forecasts of expected change would become self-fulfilling. He also pointed out that over the years the survey had proved most accurate in its forecasts of investment trends.

All of which is hardly the most encouraging news in the light of the doom and gloom in yesterday's survey. The forecasts the first downturn in investment plans for some time due not to the present position reported by companies, but to their fears for the future.

## Rough reportage

The philosophical attitude of American financiers to straightforward attacks on their professional integrity never ceases to surprise me. Articles that would leave British counterparts shouting hoarsely for their libel lawyers seem to leave them unmoved.

The latest edition of the U.S. magazine Institutional Investor carries a story of the "mid-life crisis" of security analysts. It puts the finger in no uncertain way on Peter Marcus, who fell from the top position in his New York stockbroking firm Paine Webber/Mitchell Hutchins after six consecutive years as No. 1.

On the telephone from New York, Marcus said he had never occurred to him to sue anybody. "Sure, it can't help but hurt me," he said. "But I don't think about it. I've got better things to worry about."

## Iona touchdown

There is a mystery about the fate of Iona since Sir Hugh Fraser paid £1.5m to buy the Hebridean island for the nation two months ago.

A sale condition, passed on by the Duke of Argyll from the islanders themselves, was that should on account be administered by the National Trust. It seems Iona feared being turned into some enormous museum by the Trust.

Sir Hugh, who bought the island in memory of his father,

the late Lord Fraser, has turned it over to the Scottish Office to make arrangements for the island's continued welfare. "We don't know what's happening," Sir Hugh's assistant said yesterday. "It's out of our hands."

The Scottish Office was no wiser. Its Iona man had gone off to the island and left no word in Edinburgh on what, if anything, had been decided.

Some light may be thrown on the issue today. Sir William Lithgow, the former shipyard owner who is Chairman of the Iona Cathedral Trustees Appeal, has borrowed helicopters from BP to take key members of the world's Press to look at the island. One man will naturally be among them.

Two bishops and the Moderator of the General Assembly of the Church of Scotland are also being airlifted in—presumably to pray for guidance.

## Word in the ear

There is a resurgence of the Victorian custom of listening to books being read aloud after dinner. But nowadays, the readings issue from a tape recorder. This week, a £100,000 advertising campaign has been launched on Thames TV by an EMI offshoot. Listen for Pleasure promotes its "cassette books."

It is the latest move in a campaign to sell taped literature to a mass market. Although the EMI offerings include Charlotte Brontë, they are in general aimed at a far more popular market than any earlier ventures. "We have sold 25,000 packs of James Herriot reading selections from his books," says Jigga Dunn, an American who is in charge of production.

How are the bookshoppers reacting? The two-cassette packs, with a running time of up to three hours, are sold in boxes made up to look like actual books. It seems that very few individual bookshoppers are yet willing to sell them—and perhaps because books are zero-rated for VAT, whereas cassettes attract VAT, and some bookshoppers cannot face all the

unfamiliar arithmetic. Big booksellers, such as W. H. Smith, Foyle's and Blackwell's, are only selling the EMI "books" in their record departments.

A typical individual bookseller, Ernest Fielder of Wimbledon, says he is carefully waiting to see how cassette books will develop. "I still think people like to read quietly in bed," he says, "without a lot of noise."

For all that, the trade magazine, The Bookseller, will this month be publishing a chapter extracted from a forthcoming (real) book by non-scientist Christopher Evans. The title of the extract: "Death of the Printed Word."

## Spitting distance

Glasgow Central Station has rarely been a place for festivity and the mood in the city is even more down than usual at the moment. But the 100,000 passengers a day who arrive at the station are this week being pelted with souvenirs and travel passes by staff tricked out in nineteenth-century costume. It is British Rail's way of celebrating the station's centenary—the only period items missing from the platforms are the large spittoons which Glaswegians once liked to have handy. BR is also hoping to prove that the future will be as agreeable as the distant past. This autumn will see the opening of the £28m. Trans-Clyde line, five miles of track which link the northern and southern sectors of the city. It is a joint venture with the Greater Glasgow Transit Authority.

## In for lunch

A reader tells me that he approached a girl assistant in a Basingstoke shop, after waiting for some time to be served. "Could you help me?" he asked. "I'm sorry, dear," she answered. "I'm not back from lunch yet."

Observer



"I'd planned to have enough. But these days I have to have some help."

When you've once known a reasonable standard and have saved for your retirement, what can you do when inflation makes a mockery of all your careful planning?

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Please help the DGAA with a donation. And please, do remember the DGAA when making out your Will.

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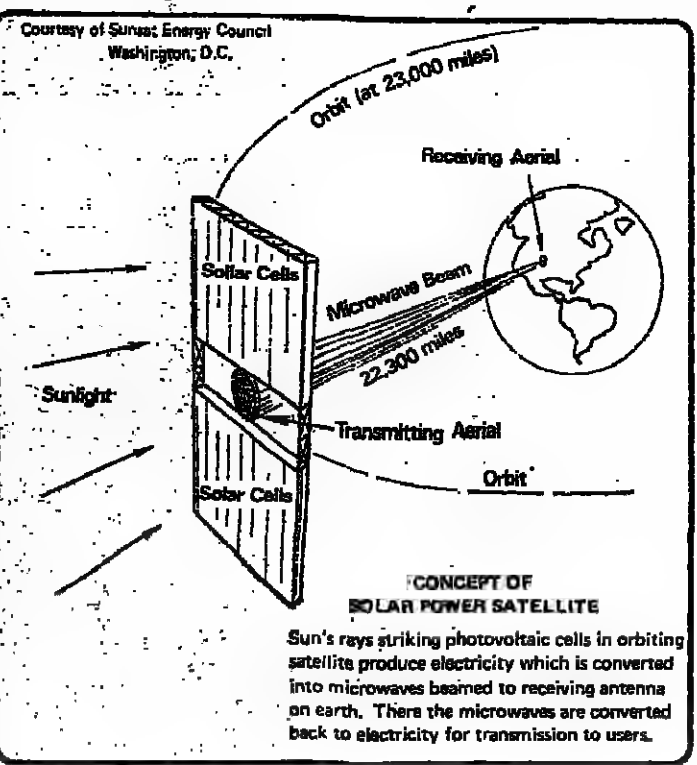
# A solar smorgasbrod

PRESIDENT JIMMY CARTER on July 15 made the equivalent of John F. Kennedy's famous declaration of 1961: "We choose to go to the moon in this decade, because that goal will serve to organise and measure the best of our energies and skills." The U.S. has set a goal of harnessing 20 per cent of its energy from the sun by the end of the century. To put the figure into perspective, even assuming present-day levels of U.S. energy consumption, it represents rather more energy than the U.S. is winning from coal.

But it seems to include the expansion of hydro-electric resources, which already account for about 5 per cent of U.S. electricity. The U.S. has identified more than 600 new sites.

The sun is a natural nuclear fusion reactor, inexhaustible for all practical purposes, from the more deadly rays of which distance and the earth's atmosphere keep us fairly efficiently protected. The scientists are clearly having a frustratingly difficult time trying to simulate the sun's nuclear reactions on earth, in experiments now costing \$100m-£200m a throw. What could be more natural than for the nation which 10 years ago conquered the moon now to declare that it will conquer the sun?

The next question is how. President Nixon, upon hearing that SpaceShip One had landed, declared that "the heavens have become part of man's world." But his own Project Independence for making the U.S. self-sufficient in energy by 1985, by such means as solar energy, has long since been abandoned. Prodigious spending on research



and development in national as well as industrial research centres has produced what a former U.S. energy research chief once called a "smorgasbrod of technology," but almost no new energy other than nuclear. Even new hydro-electric schemes have been blocked for "environmental" reasons.

The reasons for this failure are many and varied, but can often be traced to the sheer variety of choice. It has caused endless bickering about which projects should be pursued where, with whose money. The Department of Energy, in keeping with U.S. custom, wanted industry to build the big demonstration plants. But companies claiming to be ready and willing to press ahead have found themselves debarred by political unpopularity from receiving public funds for the project.

Even the creation in 1977 of the Solar Energy Research Institute (SERI) in the sun-belt at Golden, Colorado, has not had the desired effect of co-ordinating the solar energy programme. "We're here to foster an industry," the director claims. But a score of Congressmen from places which failed to host the coveted new institute have been trying to make sure it cannot work. There even has been talk of a national network of solar institutes—little SERIs—to take charge of the Department of Energy's solar programme, expected to involve contracts worth \$200m-£300m by the early 1980s.

Solar technology energy differs in important ways from other technologies for the production of energy. For example, with nuclear energy there is a single market, the electricity supply industry; and a single technology, the nuclear reactor, which these days comes in a small variety of commercial designs. For the conversion of coal to oil or gas, there are a small number of interesting chemical routes which, given another couple of decades of development, design and plant construction, may well succeed in replacing some oil imports.

Solar technology is more akin to new technology for the conservation of energy. In both areas there is a great variety of possibilities, at every level from the humblest domestic function of water heating to very dramatic changes in the way entire industries organise their activities. In both areas there has been a dismal lack of direction in ordering priorities, deciding where cash and effort should go first in order to open a new source of energy. In both areas top energy department executives have stumbled over political hurdles deliberately strewn in their path, or have resigned in frustration.

Let us first get a glimpse of the smorgasbrod of technology. Inevitably, there is a glimmer of light to the market and it is not confined to those who would rather sport a windmill on the roof than pay electricity bills. A paperweight on my desk on a sunny day generates just enough electricity to tinkle out a few bars of You are my Sunshine. On Fifth Avenue in New York for \$16 you can buy a sun hat fitted with a solar cell which drives a small fan—to keep you cool in the sun.

At the other end of the market there is a scheme which has the enthusiastic support of the U.S. aerospace industry, for solar stations in space, harvesting sunshine day and night, and beaming it 23,000 miles back to earth as microwave energy. Its inventor, Dr. Peter Glaser, an engineer with Arthur D. Little

in Cambridge, Massachusetts, sees solar stations generating perhaps 5,000 MW of electricity apiece (equivalent to about one-twelfth of total existing generating capacity in Britain) as the long-term answer to any limits to the terrestrial resources of nuclear fuel. He claims, on the basis of studies with which such companies as Boeing, Lockheed, McDonnell Douglas and U.S. General Electric are associated, that such power plants could be built for \$1,600-£2,000 per kW, compared with \$1,400 per kW for nuclear stations, would need no fuel, and "only periodic maintenance."

But Dr. Glaser's grandiose scheme has been bitterly attacked in many quarters, not least by those opposed to centralising supplies of energy generally (and of electricity especially), who see solar energy as the great opportunity for decentralising. They point out that while it may place the main inefficiencies in the system well away from the earth, it will interfere environmentally by introducing microwaves and water vapour into the atmosphere, and will require very large aerials to catch the microwaves.

Even the U.S. National Aeronautics and Space Administration has not been lobbying for that particular technology. A few months ago Dr. Robert Frosch, NASA's administrator, told me that he was "rather sceptical" about several aspects of the scheme. He wanted to know more about the engineering problems, the environmental effects, and above all the economics, he said.

Figure NASA has been conjuring with are \$50bn to set up the project along the lines of the Apollo moon landing, and another \$25bn to build the first power station in space. Even these figures assume solar cell efficiencies of 17 per cent over acres of cells—and we have barely done that in the laboratory.

## STATUS OF U.S. SOLAR TECHNOLOGIES

TECHNOLOGY	APPLICATION	WHEN COMMERCIAL	COMMENT
Solar power satellite	Electricity	Well beyond 2000	Very high capital investment
Solar cells (photo-voltaics)	Electricity	Now—at a price	No way known of mass-producing
Power towers	Electricity	1990s	Storage/cost problems
High temperature solar heating	Industrial heat	1980s	Ripe for exploitation
Low-temperature solar heating	Commercial/domestic heat	1980s	Ripe for exploitation
Ocean thermal energy conversion (OTEC)	Electricity	2000+	Very low efficiencies of 5-7 per cent
Windmills	Electricity (mainly)	late 1980s	Storage/cost problems
Biomass	Liquid fuels (gasohol)	1980s	Ripe for exploitation

More down to earth, solar cells may be able to provide enough energy to drive solar hats or music boxes, and even power telephones and electric fences in sunny places. But their inefficiency and cost puts them far beyond reach of the electricity companies. Those in the sunbelt have at least shown some interest in the possibility of raising steam at the temperatures and pressures they are accustomed to using by the time-honoured boy scout method of focusing the sun's rays. The technology is variously known as the "power tower" or heliostat. The idea is to have an array of mirrors—which, for a sizable station would cover many acres—focused upon a central, elevated boiler. In order to generate 100 MW of electricity the design would have to catch most of the solar energy falling upon some 3-5 square kilometres.

Like solar satellites, the technology falls foul of those opposed to central electricity supplies. It is also criticised as impossibly expensive. Estimates have been made that to compete with present methods of generating electricity the solar collectors and their precision steering must be manufactured for prices lower than the cost of motorway signs and advertising hoardings. Even that takes no account of the fact that when the sun is not shining the plant will be generating no electricity.

Energy storage is a vexed question for many solar enthusiasts who are in danger of forgetting that anyone might want electricity at night. The fact is that storage technology for electricity remains in a rather primitive and expensive state. Storage of heat energy is another matter. U.S. industry has done an immense amount of work since the 1973 oil price increases on new technology for capturing and storing sunshine at temperatures of genuine interest to industry. A government survey a year or so ago counted nearly 300 companies in the business.

Here above all there are real opportunities for replacing oil across a broad swathe of the U.S., harnessing solar energy at temperatures high enough to provide not only domestic and commercial heating (or cooling) but process heat for industries. The storage problem is solved by storing the heat in water or a liquid with a higher boiling point. More than half-a-dozen companies are said to be offering temperatures as high as 315 degrees C. Scientific Atlanta offers a solar concentrator said to raise temperatures of 495 degrees C.

A more adventurous way of overcoming the storage problem would use solar energy already stored in the sea. It will require huge machines called ocean thermal energy converters (OTEC), of which the Department of Energy is funding an experimental model in the Pacific off Hawaii. In effect it will be a big heat pump sucking heat from the sea. Its big disadvantage is a dismal theoretical efficiency, only about 5 to 7 per cent, as the reward for heavy capital investment.

Nature solves the problem of storing sunlight energy by converting it into chemical energy in green plants. Plants rich in carbohydrates can be fermented to produce alcohol, which in turn can be distilled for use as a liquid fuel—far example, as a 10-30 per cent mixture with petrol called gasohol or "green petrol." The U.S. is already wrestling with the economics of gasohol. More than 500 petrol stations—mainly in the cornbelt of the Midwest—sell a blend containing 10 per cent alcohol.

Swift's Lupton inventor in Culter's Travels had spent "eight years on a project for extracting sunbeams out of cucumbers which were to be put in vials hermetically sealed, and let out to warm the air in raw inclement summers." President Carter's hordes of state-funded solar inventors have undoubtedly made progress with projects capable of warming air to several hundred degrees centigrade. But unless most of the effort goes into time-honoured technology such as hydro-electricity or gasohol, they will surely fall short, by a very wide margin, of meeting 20 per cent of the U.S.'s energy needs by the end of the century.

## Letters to the Editor

### New and inapt word

From the Chairman, The Stock Exchange.

Sir—I am distressed to learn from John Elliott and Ansteele Kaletsky in their article (July 30) "Long and short terms: the new word in denationalisation" that "privatisation" is "becoming part of the vocabulary of Whitehall. I do not want to say it. I cannot add the word in the Oxford English Dictionary, although I must admit that the latest volume of the OED supplement only takes us to E-N. When the next volume of the supplement appears I hope the outcry will read something like this—Privatisation [n. of action 1. PRIVATE]isation. Obs. 1. The act of returning state-controlled industries to public ownership. 2. The removal of industries from political and/or (usually) bureaucratic direction by the few, and their subjection instead to commercial criteria and disciplines imposed by the many. 3. Democratisation, accountability, greater efficiency, productivity, etc.

Whitehall does not need this new and inapt word. It has somewhere in the pending fray, the words "public ownership" which aptly describe the Government's policies. These are the words that Ministers should be using.

Nicholas Goodison,  
The Stock Exchange, EC2.

gramme, a large part of which will not be completed until the late eighties or nineties. As John Lloyd indicated in his article on July 24 the whole business of the new industrial structure is now being examined.

(Sir) Derek Ezra,  
National Coal Board,  
Robert House,  
Grosvener Place, SW1.

### Commodity centre

From Mr. J. Finn, MP.

Sir—May I express my serious concern at the Government's refusal so far to provide financial assistance for a World Commodity Centre in London, as reported on July 20.

The advantages to London and the UK of such a centre have been well established and are presumably recognised by the last administration. But while the Government is prepared to consider a guarantee, it is not so far prepared to provide the assistance to enable the project to go ahead.

The situation is becoming urgent with various international commodity organisations seeking suitable facilities and being offered attractive

terms to establish themselves elsewhere.

A great deal of practical work has been done over recent years by a study group working with the assistance of the Parliamentary Group for World Government and a fair measure of agreement was reached with the previous Government. Now, however, the situation is becoming urgent and I would hope that all who favour the establishment of a world commodities centre in London would do their utmost to persuade Her Majesty's Government to make a direct financial contribution to the project, perhaps in conjunction with assistance from the Greater London Council.

James Tinn,  
House of Commons, SW1.

### Interest, tax and income

From the Chairman, Residential Property Federation, British Property Federation.

Sir—There is so much sound common sense in your leading article of July 26 that one hesitates to cavil at any part of it. In particular, your emphasis on the need for a revived private rented sector to fill the housing gaps in our present housing system is most

timely, as was Mr. Trollope's letter (July 25) on the same point.

Perhaps through lack of space, however, not omitted to mention the factors without which the private rented sector cannot hope to be revived. Paramount among these is the need for the investing landlord to obtain from his investment a return which will be at least as attractive to him as the return he can obtain by investing elsewhere. This means that those who occupy rented accommodation must be prepared to pay a rent which, after deducting the landlord's outgoings, will give him such a return. What the level of return should be can be debated endlessly. If inflation is to continue at its present rate, or even at a slower rate, property is likely to be such a good inflation hedge, that potential landlords might be satisfied with income which gives them a relatively low percentage on the capital invested. If, however, as we all hope, the Government achieves success in fighting inflation, different factors will prevail.

I am not quite sure what you were advocating in the first four paragraphs of your article. Was it that the old Schedule A tax on the occupation of property should be revived, but the present "privilege" of deducting mortgage interest from income before assessing tax should remain, or was it saying that Schedule A should be revived and the "privilege" withdrawn as well?

While dealing with some of the history of the old Schedule A tax, your leader-writer omitted to mention that until Mr. Jenkins introduced the Finance Act of 1965, all interest was deducted from income before the net income on which tax had to be paid was calculated. Since income tax has, I believe, existed since the Napoleonic Wars, it seems that quite a number of previous generations found it logical that this should be so. It was only when inflation began to be serious, and as a result the capital gains to be made by buying property with borrowed money became disproportionate that people began to think there was anything wrong with that principle. In fact it is not that principle which is wrong, but the fact of inflation.

Of course, when Mr. Jenkins took away the facility of deducting interest before tax from the majority of people, but left it available to the owner-occupiers of houses, he perpetrated an injustice in favour of owner-occupiers and against all other tax payers. It does not follow that the way to put that injustice right is to take the facility away from the owner-occupiers. It would make a lot more sense to get rid of the inflation and restore the pre-Jenkins situation.

M. D. T. Evans,  
British Property Federation,  
35 Catherine Place, S.W.1.

### New auditing and disclosure requirements

From Mr. J. Percy.

Sir—As reported by Michael Lafferty (June 28), the Government will shortly publish a consultative paper on company law. It seems likely that it will embrace new auditing and disclosure requirements for small proprietary companies. This is not just a matter of narrow professional concern to accountants. It will profoundly affect many thousands of companies, their proprietors and those with whom they do business. If the wrong decisions are taken, many costs will increase, yet in practical terms the public will receive less comfort than it has a right to expect from audited accounts.

I write as an auditor but I am not mainly concerned in this letter with the interests of the auditor. Limited companies are audited not for the benefit of the management, but for the benefit of the present proprietors and the wider public—the prospective proprietors, the financiers, the suppliers and the customers.

It is often said that the audit is the price to pay for limited liability. So be it. The proprietor has the choice of unincorporated trading if he prefers. The banks and the other major creditors can protect themselves by seeking personal guarantees from directors. But for the other members of society, it is essential that the protection intended by the law is both meaningful and worthwhile.

So what has changed? Smaller companies have been with us for generations. Audit reports under the Companies Acts have been issued, mainly without qualification. The change is in the nature of the evidence which is properly expected. It is no longer enough for the auditor to rely on the uncorroborated word of the directors.

Following good practice, formal standards of much greater rigour than of ten or twenty years ago can be expected. The larger company

is accustomed to such standards and is normally able to produce independent verification of its affairs and dealings as a by-product of its own commercial practices. The smaller company is likely to be less fortunate. Its scale will often preclude it from applying adequate internal control. Indeed, many small cash businesses will be unauditably.

If an auditor is unable to independently verify significant transactions or assets or liabilities, he will have only two choices: to qualify his report and draw attention to the areas in which he was unable to satisfy himself; or to disclaim any responsibility. Many argue that there would have to be so many qualifications of this kind that the audit process would lose its meaning. Various solutions have been suggested. Some solution has to be found. Meaningless reports will discredit the whole concept of statutory audit. Those with the influence and the need for information to submit to special investigations for particular purposes. Today it may be the bank, tomorrow the Revenue, the next day a major creditor.

It has been mooted in Government circles that there should be two sets of auditing standards without legislative distinction. The confusion to which this could lead in the minds of the moderately informed public will be clear from a moment's reflection. Dual standards would be ambiguous.

The auditing practices committee has published discussion drafts which give guidance on the work required to express a "true and fair" opinion. Those discussion drafts recommend the obtaining of independent evidence. In circumstances where such evidence is not obtainable and the auditor has relied on representations from directors, he is urged to qualify his opinion to that effect.

Many of us, however, believe that the best way for all concerned is to acknowledge that

the traditional "true and fair" opinion cannot be given to many smaller companies, which for reasons beyond their control are unable to fulfil the demands for independent verification of data.

In the U.S. and Canada, where there is no audit requirement for small companies, a recent standard requires the reporting accountant to make enquiries of company personnel and carry out analytical review procedures. This may represent an improvement in standards for those countries. In my opinion, it is open to the criticism that it is too great a relaxation of requirements in the UK and needs to be built upon to form a clear, credible, useful and "respectable" alternative to the audit.

The method I suggest is this. The law should be changed to allow small companies to opt out of the audit requirement and to be subject instead to a review. This would encompass enquiries, analytical procedures to ensure that the accounts make sense, and procedures to substantiate the amount and existence of all assets and liabilities appearing in the accounts.

The choice of audit or review should rest with a 90 per cent majority of the voting shares in a qualifying company. Such a company should be within the EEC fourth directive limits—I suggest in current monetary terms a turnover less than £0.5m; total assets less than £0.25m; employees fewer than 25. The company that considers it worthwhile so to arrange its affairs to be able to meet the conditions for a true and fair audit report can do so. The company that prefers not to do so—or cannot by its very nature do so—can opt for review.

I urge all who are affected to influence the Government to change the law and the accountancy bodies to define the review requirements in detail.

Jan Percy,  
Thornton Baker,  
Foster House,  
Fulwood Place, WC1.

### Relief from pollution

From the Assistant Director of Planning, Brown Boveri and Co., Switzerland.

Sir—From the point of view of carbon dioxide pollution President Carter's new energy policy does not bring any relief; on the contrary. If one substitutes coal for oil the carbon dioxide output per energy unit consumed is approximately 50 per cent higher.

It is an established fact that the content in the atmosphere has already risen 15 per cent since the last century. It is also scientifically proven that concentrations above a certain level cause an increase in average earth temperature. This effect will stay for centuries because of the slow processes involved in lowering the concentration even after stopping carbon dioxide production completely.

If one looks for long range solutions to the energy problem one should take these facts into consideration and start lowering its production as soon as reasonably possible. An alternative path, which avoids the pollutant completely, would be the nuclear option which has been chosen by France and partly by the Comecon countries. It would need, however, an aggressive programme which included reprocessing of spent fuel and fast breeder development. The U.S. as one-time leader in nuclear technology has unfortunately barred this route firmly and will contribute thus for many years to come to world-wide carbon dioxide pollution.

Dr. H. K. Lutz,  
(Former Director of Mühleberg Nuclear Power Station),  
CH-3084 Wabern,  
Viktoria-Strasse,  
Switzerland.

### Coal Board financing

From the Chairman, National Coal Board.

Sir—In an article about denationalisation (July 28) the National Coal Board was shown in a table under the heading of "lame ducks." I carefully searched the article to find out on what basis this classification was made, but there was no reference whatsoever to the NCB in the text.

I wonder whether the authors of the article considered the following in compiling their table? Since 1974 the coal industry has embarked on a plan of expansion to meet likely additional demands when other sources of fossil fuel begin to run out towards the end of the century. The plan is based on increased exploration, investment and research. Substantial progress has been made under each heading in the past five years.

In spite of severe difficulties caused by the winter transport disruption, the coal industry's operating profit last year was higher than in the previous year. Although some grants are received by the industry (much less than on the Continent), it is a net contributor to central and local government funds.

The NCB has stimulated and supported efforts to sell British mining technology and equipment abroad, and this is now being effectively pursued in over 40 countries.

In an all-out attempt to meet the increased demand for coal, arising from restrictions in oil supplies, some 2m more tons have been delivered in the four months to date compared with last year—a 5 per cent increase. In spite of a difficult start, due mainly to some major geological setbacks, outputs are now rising at planned levels.

Of course the mining industry has its problems. One of the substantial investment programme

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## NEWS ANALYSIS—WELLMAN DEFENCE

A chance to decide:  
Redman or Indiana

BY RAY MAUGHAN

A COMMON takeover tactic to bid for a business when its profits are temporarily down. Redman's takeover of the Industrial Heating & Engineering Corporation (IHED) is a case in point. Wellman's bid for the company is being made at a time when its profits are down.

The move is also important, the way Redman sees it at least, for the consideration would transform a company with £2.5m of cash in its last balance sheet into one with a substantial amount of cash.

There was no debt at the March year-end but Wellman proposes to take on gearing of 42 per cent through a £2.5m 10-year Industrial Revenue Bond and a £1.72m overdraft facility.

Shareholders have been asked to ratify an increase in cash balance would be reduced to £210,000 by the subscription of new equity capital in the recently formed U.S. subsidiary, Wellman Inc.

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our greatest salesman." Much might depend on the successful commissioning of a Caterpillar Tractor plant at York, Pennsylvania, which is being built to Wellman's design.

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into that product in the first place. If that implies a high level of subsidiary Board autonomy, it may be worth noting that the current executive team that Wellman hopes to inherit has been with GE for not less than 13 years and whose average age is around 35 years. Equally important, it was not responsible for the electro-boiler decision.

The profits of IHED have not been warranted, save that the consideration will be reduced by £108,000 if the acquisition makes less than £1.1m before interest and tax in the 33 weeks to March 1980. But GE has agreed to cover any future losses on the electro-boilers failure.

Redman has no argument with the commercial logic offered by the deal and, indeed, has already approached GE with a view to continuing the IHED purchase should the offer for Wellman succeed. GE, for its part, feels "very positive about Wellman" and has been concerned to find a buyer with good prospects related to its basic business and proven expertise.

Whatever the outlook at IHED it is vital that Wellman is able to fund its proposed high level of borrowing from a stable home base.

Its profits last time slumped by almost 34 per cent after higher than expected moving costs, a severe disruption in the industries served by Wellman Alloys and significant losses stemming from industrial disruption in the motor industry. However, the group has already forecast over £500,000 pre-tax for the six months to September which, given the normal half-to-half bias, suggests something in the region of a recovery to 1978 profit levels of £1.53m.

That implies an exit p/e of 11.7. If Redman's offer is accepted, but before shareholders decide as to the generosity or otherwise of this offer, there should be more questions to be asked concerning past losses, management and prospects in far away Indiana.

Pratt declines  
at halfway

TAXABLE PROFITS of F. Pratt Engineering Corporation fell from a restated £522,000 to £388,000 in the half-year to April 30, 1979. But the group says that since midway its performance has improved and it is looking for more satisfactory results in the second half. Orders on hand at the interim stage were £8.7m, up £1.9m in the half year.

Figures for the constructional steel division which has been closed down have been excluded from the results. Closure costs and losses have been made in the accounts for the year to October 31, 1978, when the company produced pre-tax profits of £967,000. Turnover and profit for last year's midway results have been adjusted.

The directors say that widespread industrial problems, high interest rates and generally weaker trading conditions in the UK prevented the group from maintaining the upward trend of the second half of last year. They add that the transport workers' strike depressed results for the first half.

The interim dividend is lifted from 1.8391p net per 25p share to 2.2p. Earnings per share are down from 6.2p to 5.5p. Last year's total payment was 5.4214p. Turnover for the half-year rose from £8.1m to £8.98m.

The taxable profit was struck after depreciation of £240,000 (£202,000) and interest charges up from £211,000 to £247,500. Tax takes £203,000 (£221,000) leaving the attributable surplus down from £331,000 to £186,000. The dividend costs £118,000, against £98,000.

A professional revaluation of the principal freehold and leasehold properties showed an open market value of £8.5m, a surplus of about £3.9m over book value.

Half-year  
Turnover ..... £8.98  
Trading profit ..... 576  
Depreciation ..... 240  
Interest ..... 247.5  
Taxable profit ..... 388  
Tax ..... 203  
Attributable profit ..... 186  
Dividend ..... 118

## comment

Six months ago, after closing its loss-making constructional steel division, Pratt was making optimistic noises about the future but tempering them with warnings about the effects of continued industrial

## BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether dividends are interim or final and the sub-divisions shown below are based mainly on last year's timetable.

shown below are based mainly on last year's figures.		
TODAY		
Interim—Martin Ford, Shell Transport and Trading, Vespene, Yeoman Investment Trust.		
Final—Brady Industries, Bransgrove Castings and Machinery, Dixons Photographic, Hazlewood (Proprietary), Morgan Edwards, Alexander Russell, Savile Industries, Waring and Galloway.		
FUTURE DATES		
Interim—		
Apleyford .....	Sept. 27	
Automated Security .....	Aug. 2	
Clark (T) .....	Aug. 23	
Imperial Chemical Industries .....	Aug. 23	
Providence Financial .....	Sept. 4	
Royal Insurance .....	Aug. 16	
Smith and Nephew .....	Aug. 14	
Tricentel .....	Aug. 2	
Whitehouse (George) .....	Aug. 7	
Final—		
American Asphalt .....	Aug. 8	
Assam Investments .....	Aug. 8	
Contway .....	Aug. 7	
Commercial Bank of Australia .....	Aug. 27	
Governor European Trust .....	Aug. 2	
Hume Holdings .....	Aug. 16	
Leicester .....	Aug. 16	
Norton and Vignoli .....	Aug. 3	
Smith (David S.) .....	Aug. 16	
Sommerville (Wm.) .....	Aug. 2	
Unilever .....	Aug. 17	

disturbances. In the event, the company's caveat was justified by the unquantified impact of January's lorry drivers' strike, particularly its exports, and the continued problems in the motor industry, which depressed the important forging division. These factors, coupled with an increase in borrowings and higher interest rates, combined to drop profits by 29 per cent in the first half. Since then, borrowings have been reduced and there should be further relief from the sale of some property in the constructional steel division. The order book, which is 28 per cent higher than last October, is an encouraging feature, because it contains some useful volume growth, although some of the increase reflects orders carried over from the previous half.

Overall, Pratt will find it difficult to make a complete profit recovery in the closing six months but £0.9m pre-tax looks possible. At this level, the shares are on a p/e of 4.1 at 62p while the prospective yield is over 16 per cent assuming a one-fifth dividend increase.

## Grindlays Bank S.A.

From August 1st 1979  
Banque Grindlay Ottomane  
changes its name to Grindlays Bank S.A.

Grindlays Bank S.A. has from August 1st acquired 4 additional branches and now has 15 branches in France, Monaco and Switzerland. Grindlays Bank S.A. is a member of the Grindlays Bank Group with over 200 branches and offices in more than 35 countries around the world.



Grindlays Bank S.A.

Head Office: 7, Rue Meyerbeer,  
75428 Paris Cedex 09.  
Tel: 266 6222 Telex: 210026

Branches in Paris, Aix-En-Provence, Cannes, Grasse, Lille,  
Lyon, Marseille, Nice, Toulon, Strasbourg, Monte Carlo,  
Geneva and Zurich.

## CH Industrials makes encouraging start

THE ENCOURAGING trend in profits of CH Industrials which became evident at the beginning of its current year is continuing, says Mr. T. M. Hearley, the chairman, in his annual statement.

Management accounts show that first-quarter results are a little ahead of the same period last year. On sales 12 per cent higher at £14.36m, pre-tax profits for the

year ended March 31, 1979, fell by 22 per cent to £24,492, as reported June 28. The result was affected by production difficulties, the road haulage strike, and bad weather.

Despite some adverse factors, the directors are optimistic that the current year will see a more acceptable level of profitability, although they add that in some areas of operations progress will be difficult.

In the decorative trim division, the production problems of the metal trim activities have been largely overcome and an improving level of profitability is expected throughout the year. However, market conditions are more difficult and some decline in order intake is already apparent.

All companies in the building products division are experiencing substantial raw material cost increases, which Mr. Hearley says must be passed on if improved profitability is to be maintained. Overall, this side is expected to produce a substantial contribution to group profits in the current year.

The automotive trim division has built a strong order book for canvas weatherproofing products, particularly for the Ministry of Defence, and the chairman says these products should make a valuable contribution this year.

It should also benefit from the introduction of the new TR7 soft top, he adds.

Prospects for this division remain highly dependent on the success of its principal customer to maintain car production close to scheduled levels, but indications are encouraging for the year as a whole.

The synthetic foam side has suffered rapid escalation in raw material costs due to price increases of oil-derived feedstocks. However, the year has opened satisfactorily, and this company is expected to continue to progress.

During 1978-79, group capital expenditure totalled £610,000, while the acquisition of S.A. Richardson and the investment in Medford totalled a further £820,000. This year, it is planned to spend another £1m, principally on further expanding the Cementation operation in Buckingham.

An additional term loan facility has been made available by the group's bankers, while agreed property disposals will provide a further £350,000. On a GCA basis, pre-tax profits are reduced to £266,997 (£851,907), after extra depreciation of £250,651 (£179,414) cost of sales of £131,897 (£42,306), partly offset by gearing adjustment of £125,053 (£74,276). Meeting, The Carlton Tower Hotel, SW, August 30, noon.

## Courts

(Continued)

Year ended	1978	1977
Turnover (inc. VAT)	£46,087,000	£47,102,000
Profit before taxation	£3,886,000	£4,893,000
Profit after taxation	£3,210,000	£2,609,000

- Records profit figures from 10 stores worldwide.
- Accumulated deferred profit now £10,788,000.
- Net assets £23.6p per share.
- Yor 2 cent rise proposed. Dividend increased.
- Intend to maintain dividend on increased capital.
- Current sales ahead of last year.

All of these securities have been sold. This announcement appears as a matter of record only.

## NEW ISSUE

August 1, 1979

U.S. \$100,000,000

## BENEFICIAL OVERSEAS FINANCE N.V.

9 3/4% NOTES DUE JULY 15, 1987

Unconditionally Guaranteed as to Payment of Principal,  
Premium, if any, and Interest by

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Chemical Bank International

Commerzbank

Credit Suisse First Boston

European Banking Company

Manufacturers Hanover

Morgan Guaranty Ltd.

Société Générale de Banque S.A.

Westdeutsche Landesbank

## MANUFACTURERS HANOVER CORPORATION &amp; Subsidiaries

## DIRECTORS

- WILLIAM S. BEINECKE**  
Chairman of the Board  
The Sperry and Hutchinson Company
- MICHEL C. BERGERAC**  
Chairman of the Board,  
President and Chief Executive Officer  
Revlon, Inc.
- WILLIAM S. CASHEL, JR.**  
Vice Chairman of the Board  
American Telephone & Telegraph Company
- GABRIEL HAUGE**
- HENRY H. HENLEY, JR.**  
Chairman and Chief Executive Officer  
Client, Peabody & Co., Inc.
- BARRON HILTON**  
Chairman of the Board and President  
Hilton Hotels Corporation
- JOSEPH F. ROLLAND**  
Director of various corporations
- WILLIAM E. LAPORTE**  
Chairman of the Board  
American Home Products Corporation
- J. PAUL LYET**  
Chairman of the Board and  
Chief Executive Officer  
Sperry Rand Corporation
- THOMAS M. MACROCE**  
President and Chief Executive Officer  
Allied Stores Corporation
- JOHN E. MCGILLICUDDY**  
Chairman of the Board and President
- KENNETH C. MURPHY**  
Chairman of the Board and  
Chief Executive Officer  
Dana Corporation
- GEORGE B. MUNROE**  
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Phelps Dodge Corporation
- CHARLES J. PILLIOD, JR.**  
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Chief Executive Officer  
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- JOHN B. RICKER, JR.**  
Chairman of the Board and President  
The Continental Corporation
- HARRY TAYLOR**  
Vice Chairman of the Board
- W. BRUCE THOMAS**  
Executive Vice President  
Accounting and Finance  
and Director  
United States Steel Corporation
- JOHN R. TORRELL III**  
Vice Chairman of the Board
- MARINA V. N. WHITMAN**  
Distinguished Public Service Professor  
of Economics, University of Pittsburgh
- GEORGE G. ZIFF**  
Vice Chairman of the Board  
J. Ray McDermott & Co., Inc.  
President  
The Babcock & Wilcox Company

## Consolidated Statement of Condition, June 30, 1979

ASSETS	
Cash and Due from Banks	\$10,889,558,000
Interest Bearing Deposits with Banks	3,971,422,000
Federal Funds Sold and Securities Purchased under Agreements to Resell	212,825,000
Investment Securities (Market Value \$2,489,174,000)	2,462,842,000
Trading Account Securities (Market Value \$139,868,000)	139,827,000
Loans	23,315,301,000
Lease Financing Receivables	1,479,888,000
Total Loans (Net of Unearned Discount of \$457,647,000)	24,765,187,000
Less: Reserve for Possible Loan Losses	(212,413,000)
Net Loans	24,552,774,000
Premises and Equipment	188,754,000
Customers' Liability on Acceptances	1,624,773,000
Accrued Interest Receivable	482,665,000
Other Assets	674,879,000
Total	\$45,011,117,000
LIABILITIES	
Demand Deposits	\$13,141,503,000
Savings Deposits	1,430,018,000
Other Time Deposits	4,661,693,000
Deposits in Foreign Offices	18,463,087,000
Total Deposits	35,696,301,000
Federal Funds Purchased and Securities Sold under Agreements to Repurchase	1,998,223,000
Short-Term Borrowings	2,086,662,000
Acceptances	1,646,897,000
Accrued Taxes and Other Expenses	698,980,000
Other Liabilities	553,245,000
Long-Term Debt	854,159,000
Total Liabilities	43,534,467,000
SHAREHOLDERS' EQUITY	
Preferred Stock (without par value)	—
Authorized but unissued—10,000,000 shares	—
Common Stock (par value \$7.50)	—
Authorized—40,000,000 shares	—
Outstanding—32,919,180 shares	246,894,000
Surplus	431,990,000
Undivided Profits	797,766,000
Total Shareholders' Equity	1,476,650,000
Total	\$45,011,117,000

Headquarters: 350 Park Avenue, New York, N.Y.  
London Branches: 7 Princes St., EC2P 2 LR  
Grosvenor Square, 88 Brook St., W1A 4NF, P.O. Box 4NF

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Manufacturers Hanover Trust Company, New York, New York  
Manufacturers Hanover Trust Company/Capital, London, New York  
Manufacturers Hanover Trust Company/Control, Rochester, New York  
Manufacturers Hanover Trust Company/Western, N.A., Buffalo, New York  
Ocean, New York  
Manufacturers Hanover Leasing Corporation, New York, New York  
Manufacturers Hanover Mortgage Corporation, Southfield, Michigan  
Elber Financial Corporation, Wyandotte, Pennsylvania

## MANUFACTURERS HANOVER TRUST COMPANY SUBSIDIARIES

Manufacturers Hanover Ltd., London, England  
Manufacturers Hanover Executor & Trustee Company Ltd., London, England

Manufacturers Hanover Export Finance Ltd., London, England  
Manufacturers Hanover Bank (Guernsey) Ltd., Guernsey, Channel Islands  
Ocean Acceptances (London) Limited, London, England  
Manufacturers Hanover Property Services Ltd., London, England  
Manufacturers Hanover Leasing UK Limited, London, England  
Manufacturers Hanover Credit Corporation, London, England  
Manufacturers Hanover Bank Belgium S.A./N.V., Brussels, Belgium  
Manufacturers Hanover Banque Nordique, Paris, France  
Manufacturers Hanover Asia Ltd., Hong Kong  
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Manufacturers Hanover Bank International (Los Angeles)  
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Manufacturers Hanover Commercial Corporation  
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## MINING NEWS

## Ashton tests show a 60% gem content

BY KENNETH MARSTON, MINING EDITOR

A GOOD gem proportion of 60 per cent has been indicated from a first evaluation of diamonds collected from the Ellendale prospects at the intriguing Ashton diamond venture in Western Australia. But the value of the stones was relatively low.

Conzinc Riotinto of Australia says that the preliminary examination, carried out in Europe by expert groups which included De Beers' Central Selling Organisation, was of two parcels. One of about 880 carats came from kimberlite pipe "A" and the other of 1,220 carats was from pipe "B".

About 80 per cent by weight of the diamonds from pipe "A" was classified as cuttable gem quality, about 3 per cent was suitable only for industrial use and the remainder was regarded as suitable for lower quality gem or better quality industrial use.

Pipe "B" results also indicated 80 per cent gem quality, but 13 per cent in the industrial grade and the rest in the grey area between gem and industrial classifications. In terms of average value the pipe "A" stones varied between US\$78 per carat (C1) selling price and \$88 on the basis of the current market price.

Pipe "B" values ranged from \$56 market price to \$57 C50 price.

The high proportion of gem stones is very encouraging, bearing in mind the fact that the average size must be as low as under 20 points—there are 100 points to the carat—but the full 58 facts can be cut on diamonds of as little as just over three points.

While the average price values given are low, they can still be regarded as acceptable. Another factor in assessing the latest results is the recovery grade which in bulk samples treated in the first half of this year equalled 12.4 carats per 100 tonnes of material from the higher grade pipe "B".

This is a low recovery, certainly by South African standards. Admittedly it is about the same as at Consolidated Diamond Mines of South West Africa but that high open-pit operation has a high gem content of about 90 per cent and the stones are much larger and of good quality.

A closer comparison might be with De Beers' old Kofffontein mine which has a grade of 8.3 carats per 100 tonnes and a gem content of around 50 per cent.

but here again the average size of the stones is considerably higher.

While size alone does not determine the value of the diamond it is still very important; one stone in five carats would be worth far more than five stones of one carat, assuming that all had similar qualities in other respects such as colour, quality and shape.

But, as CRA and its diamond valuers stress, the sizes of the parcels being examined were only about one-fifth of the size normally required to indicate what the average value of diamonds in a pipe may prove to be. And, of course, Ashton has many more pipes which have not yet been examined.

So at this still early stage it is impossible to assess Ashton's prospects. In May last year the CRA chairman said that it could take three years before it was known whether diamonds existed in commercial quantities.

Allowing for the reservations that an approach to exploration requires, results of the latest study are more encouraging than most of the news we have had so far. But as the form master wrote: "Could do better."

## Uranerz in Tanzania deal

WEST GERMANY'S Uranerz-berghaus uranium group has signed an agreement with Tanzania for exclusive rights to prospect for uranium in that country. This follows a one-year exploration programme which has yielded encouraging results, reports our correspondent in Dar-es-Salaam.

The pact, the first of its kind Tanzania had signed, is for an initial two years of intensive prospecting and gives the Dar-es-Salaam Government the right to acquire a 51 per cent interest in a joint venture company to mine any exploitable deposits that might be found.

Dr. Dieter Nottmeyer, the managing director of Uranerz said that the pact, which was hammered out with the help of the Commonwealth Secretariat, embodied a formula that might well become a model for similar deals with other African countries.

His company has been prospecting in about one-third of Tanzania's initial land area following the discovery of promising radioactive anomalies in an aerial survey carried out

by another West German company, Geosurvey International.

Tanzania has sedimentary strata similar to that in South Africa, which yields low-grade deposits. But Dr. Nottmeyer believes the deposits could be richer in Tanzania.

It is understood that Tanzania would also receive a fixed royalty together with company

taxes and an additional profits tax related to the rate of return on invested capital.

Uranerz provides 50 per cent of West Germany's uranium requirements from its Canadian LaRonde Mine in Saskatchewan and is developing another big deposit in the province which, Dr. Nottmeyer estimates, will reach production in the early 1980s.

## OIL AND GAS NEWS

## Stirling finds oil on North West Shelf

Operators of the Bruce wildcat well on Australia's North West Shelf announced yesterday "minor indications of liquid hydrocarbons" in the cuttings from initial drilling reports from Lycopodium from Perth. They are in the process of cutting a conventional core.

The Bruce well is situated between Woodside Petroleum's North Rankin gas field and the Stirling Petroleum recently located on Australian stock exchanges, is the operator of the well. Other companies with an interest in the well are Magnet Metals, with 24.4 per cent, Lennard Oil, with 12.3 per cent, Monarch Petroleum, with 3.8 per cent, and Minicorp with 1.74 per cent.

The Bruce well, which is being drilled in 70 metres of water with a programmed total depth of 2,500 metres, is the first drilled by an all-Australian group since offshore tax concessions were restored three years ago.

Crude oil production from Bahrain's traditional onshore oilfields declined last year by 1.8 per cent but increased output from offshore wells shared with Saudi Arabia meant an overall increase for the Gulf Island State, according to official figures.

The Bahrain Monetary Agency said in its annual report that onshore production was 30.19m barrels in 1978 and output from the recently developed Jubail-Saudi-Bahrain Abu Safa offshore field reached 25.45m barrels.

The total output was 2 per cent up on 1977 when onshore production stood at 21.23m barrels and offshore output at 23.59m.

The value of petroleum exports, including refined oil products, rose by 2.2 per cent in 1978 to reach \$65.5m dinars, according to the report.

S.T.E. Nationale Elf-Aquitaine (SNEA) says that its subsidiary Elf-Aquitaine Oman is to go ahead with the development of an oil field at Sahmah on the Sultanate of Oman.

Oil was discovered in 1978 at Sahmah, which is in the Butaib territory around 550 km south west of Muscat, near the Saudi Arabian border. The well should produce 12,000 barrels a day from the beginning of third quarter 1980, according to SNEA.

## New business increase at Royal Insurance

A satisfactory rise in new life and pensions business in the UK and Ireland over the first half of the year is reported by the Royal Insurance Company. New annual premiums advanced by 13 per cent down £10.1m to £11.4m and single premiums by 12 per cent from £9.6m to £10.8m.

The group points out that sales

of individual pension contracts for the self-employed and for directors and executives again rose substantially, but as expected group pension was at a lower level compared with 1978 when a considerable volume of business was done coinciding with the introduction of the new State pension scheme.

On the individual life side, the group reports a satisfactory level of endowment business in repay house mortgages despite the restrictions on building society lending. The rise in single premium business reflects the Royal's continued competitiveness in the immediate annuity market.

## McMullen sees rise for year

McMullen and Sons hopes the trend in mid-year profits—which showed an increase from £334,000 to £903,000, as already reported—will at least be maintained over the year, given reasonable weather over the next couple of months.

Last year, the surplus of the brewer reached a record £1.34m (£1.46m).

The directors say the better weather of early July has produced some improvement in sales which will be helped when the tax reliefs in the Budget catch up with the effect of the VAT increase.

## STANDARD BANK NIGERIA

Standard Bank Nigeria has changed its name to the First Bank of Nigeria. It remains an associate of Standard Chartered Bank Limited, which is a substantial minority holder.

## BIDS AND DEALS

## Crellon quote cancelled

Crellon Holdings, the electrical group which has been the subject of a number of rescue packages in the past year, is to have its share listing cancelled.

This follows the sale of its last major trading subsidiary, Crellon Electronics, to Thorn Electrical Industries for £225,000. In April, a receiver was brought in to its largest subsidiary, Superlamp Metallite.

Guarantees made to Superlamp were called on and this created what was described as "excessive" liabilities on Electronics and Holdings.

So severe were the problems at that time that Crellon asked for the shares to be suspended. Mr. Joseph Elger, the new chairman who had just taken over the position and the shareholdings of Mr. Geoffrey Rose (who briefly tried to rescue the group last year), pumped in a further £692,000 by way of loan stock, convertible preference and ordinary shares.

This package resembled that put together by Mr. Rose which provided £700,000 odd of new capital by way of a convertible preference rights issue. Mr. Rose, however, sold out of the company in February, two months before the package was completed.

By this time Mr. Elger and Anthony Gibbs and Sons, his advisers who also hold a sizeable amount of the capital, were attempting to raise a further £1m which they said would leave the company with "a viable future".

The reconstruction, which would give Gibbs and Mr. Elger 43 per cent of the votes, has still to go before a special meeting of the company. This was promised in May to be held "as soon as possible". Yesterday, the Board said that the notice calling the meeting will "be issued shortly".

The Stock Exchange appears to have authorised the cancellation of Crellon's listing as preferable in a long-term suspension. Permission should shortly be made for the shares to be dealt in under the rules for unlisted companies.

As an unlisted company Crellon's only activities are a small microprocessor business which it intends to develop.

of Allwood (Nederland) BV, all of which are also Dutch companies.

The acquisition is not expected to have a material effect on the results of AGB for the year ended April 30, 1979.

## MACKAN TO BUILD UP ELLIS &amp; McHARDY

Mackan, the Canadian-owned company which is bidding £2.2m for Ellis and McHardy, intends to use the Aberdeen fuel distribution and North Sea oil service concern as the basis for building up a major trading organisation in north-east Scotland.

This is stated in the formal document. The cash offer has been accepted by the board and holders of 40.4 per cent of the shares.

Mackan Group (UK) is part of the Mackan Group of Toronto, which is owned in turn by the Trenchard family with extensive interests in steel, construction, hotels and other industries.

The offer is equivalent to 185p a share, but its implementation will be preceded by a two-for-one scrip issue with the terms adjusted to 81p on all 3.6m shares. The offer closes on August 21.

## DOROTHY PERKINS/DEBENHAMS

Dorothy Perkins, the specialist fashion retailer, is to open further shop-in-shop units in Debenhams' major stores.

The opening programme, planned for September, follows successful pilot operations in Debenhams in Bristol and Romford.

## GUTHRIE CALLS OFF MINORITY DEAL

Guthrie Corporation is not to proceed with its intended bid for the minority of Guthrie Berhad because terms could not be agreed.

Guthrie announced on July 5 that it wanted to buy in the 25 per cent it does not already own at Singapore\$2 per share. There was local opposition to the price and Standard and Chartered Merchant Bank Asia, advising the minority, declined to recommend the bid. Guthrie refused to go higher so the proposed offer has fallen through.

Shares of Guthrie Berhad have been traded at prices as high as \$2.25 since the bid was proposed. Before Guthrie's announcement yesterday, they were down to about \$2.06. The news came after the close of the Singapore exchange.

Mr. Ian Coates, managing director of Guthrie, would not be drawn yesterday on whether another approach may be made in the future.

## KITCHEN QUEEN TRANSACTIONS

Mr. Neville Johnson, the chairman of Kitchen Queen, has bought a further 250,000 shares of the company, boosting his total stake to 7.6m, or just over a quarter of the capital.

This brings the total family stake up to over 43 per cent, taking account of the dilution caused by the extra shares issued during the recent Knott Mill acquisition.

Earlier this month, it was announced that Industrial and Commercial Finance Corporation had sold its 1.69m shares, or 5.7 per cent, in the company for nearly 1m.

Meanwhile, Mr. Peter Scott, a director of Knott Mill who was chairman before the bid, has sold 1m Kitchen Queen shares, leaving a balance of 744,595 (2.5 per cent). His holding was acquired as a result of the offer. Most of the shares were placed with clients of Halliday Simpson, the Kitchen Queen brokers.

## LOOKERS BUYING MOTOR INTERESTS

Lookers, the Manchester-based motor vehicle distribution and engineering group, has agreed terms in a £675,000 cash deal to acquire Grosvenor Motors (Preston), GMP Cars' motor trade net assets, and property owned personally by Mr. Colin Cowperthwaite, managing director of both of the Preston companies.

The companies are mainly engaged in selling and maintaining motor vehicles and the sale of parts and accessories. Grosvenor holds the franchise for Fiat cars and GMP for Peugeot cars; franchises not currently held by Lookers.

Total net assets involved, including property at revaluation, amounts to £500,000 and the combined profits and property income before tax is £158,000.

## AGB/ATTWOOD STATISTICS

AGB Research has completed the acquisition of Attwood Statistics (Great Britain) and its two wholly owned subsidiaries, Attwood Statistics and Attwood Continental BV.

ASGB and ASL are market research companies and operate from Berkhamstead, Hertfordshire. Continental is a Dutch registered investment holding company owning 51 per cent of Attwood Panels BV, 50 per cent of Interact BV and 40 per cent

## Thorn plans expansion of overseas TV rentals

NO DRAMATIC short-term improvement in profit levels is foreseen by Thorn Electrical Industries and the current year will not be an impressively good one for the group.

Sir Richard Cave, chairman, says that the group is progressively laying the base of a much expanded international business particularly in television rental subsidiaries and selective acquisitions in engineering.

The chairman feels that there is much action to be taken to get the UK economy working at its proper pace again. For the group this must mean a return to substantial growth and higher profit both in the UK and overseas.

He looks forward to increased demand for the group's major products. As regards new technologies, including the microprocessor, he does not see a lowering of the total level of employment as numbers are expected to increase through a higher level of activity.

On the financial side the chairman says that the company's strong cash flow resulted in an overall improvement of £27m in the liquid position during the year. Forward cash requirements in the UK and overseas could be considerable but well within the group's borrowing capabilities, he points out.

Many overseas operations are now self-financing. If the group is successful in its plans for overseas growth and acquisitions, this will be achieved by an increase in borrowings after taking into account Budget changes in respect of overseas investments.

In the UK expenditure on rental equipment will be at a highest annual level than previously, much of which will be required to replace colour TV sets installed in the early 1970s.

In addition substantial sums will be required to finance the increase in colour television rentals which should continue for some years. The new high unit value video products which will be particularly suitable for rental will also require sizeable financing.

Thus despite a positive cash flow, borrowings in the UK can be expected to increase in the next few years, says the chairman. In the longer term he expects this trend to be reversed, as a result of a stronger positive cash flow from an enlarged rental business.

In the year ended March 31, 1979, group profit before tax, improved from £110.3m to £118.1m. The dividend is increased from 11.45p to 13p per share which is stated to be covered 4.2 times. If ED 24 were adopted in respect of inflation, accounting it is estimated that the dividend cover would be at least 2.3 times.

Referring to the application of SSAP 15 the chairman says that no deferred tax provision is considered necessary on fixed assets or stock. However, the Board has taken a more cautious view in respect of UK television receivers and video equipment for rental in view of the possible effects of rapidly changing technology and has made full provision for deferred tax in this category of assets.

The group balance sheet at March 31 shows total assets up from £826.5m to £889.1m including rental equipment of £200.1m (£183.2m), and bank deposits and cash of £23.3m (£13.8m). Overdrafts showed a reduction from £58.5m to £40.8m.

Group capital commitments at the year end stood at £22.2m (£20.6m) of which £13m (£15.1m)

had been sanctioned and £4.2m (£4.9m) was uncontracted. Meeting, Dorchester Hotel, W. September 14 at noon.

See Lex

## Lindustries warns of shortfall

MR. W. E. LUKE, retiring chairman of Lindustries, warned shareholders at the AGM that, because of particularly difficult trading conditions, the hardening of sterling and significant losses at one subsidiary, profits for the current year might show a reduction on those of last year, when the pre-tax figure turned in at £7.24m.

The losses, which were confined to a subsidiary specialising in mining equipment, presented an extremely difficult problem, he stated, and it was by no means certain that there would be a restoration of orders to either previous levels or even adequate levels in the near future.

Trading within the group was running at lower levels of profitability than was the case at this time last year.

The company's interests in engineering, rubber and polymer, and thread products.

## TRUSTS REPAY

First Scottish American Trust Co. has repaid a US\$2m line of credit, and Northern American Trust Co. a \$3m line of credit, to Morgan Guaranty Trust Co. of New York.

## Aer Lingus

## HIGHLIGHTS FROM ANNUAL REPORT for year ended 31 March 1979

- ★ Net profit IR£4.02 million after depreciation, interest and taxation.
- ★ Revenues IR£190 million.
- ★ Record 2½ million passengers carried.
- ★ Three additional aircraft ordered, option on a fourth.
- ★ Profits from ancillary activities up 28%.
- ★ Airline now operates 23 hotels.
- ★ Equity capital increased IR£15 million by Irish Government to IR£43.6 million.
- ★ 1979/80 prospects uncertain due fuel cost escalation and sluggish markets.

## RESULTS AT A GLANCE

Year ended 31 March	1979	1978
	IR£'000	IR£'000
Operating revenues	190,000	163,000
Operating profit	7,316	8,225
Net profit	4,019	4,615
Passengers carried	2,237,882	2,019,603
Cargo and Mail (tons)	59,677	63,643

## PROFIT CONTRIBUTION BY SECTOR

Year ended 31 March	1979	1978
	IR£'000	IR£'000
Air transportation profit (loss)	(2,918)	232
Aviation related services	7,562	6,027
Hotels, leisure, catering	3,332	2,414
Financial and computer services	1,077	902
Total	9,053	9,575
Less central services	1,505	1,273
Profit before interest	7,548	8,302
Less interest	3,529	3,687
Net profit	4,019	4,615

## Warnford Investments Limited

Extracts from the Review by the Chairman, Mr. Ross Goobey for the year ended 25th December 1978.

PROFITS Turnover of the Group increased to £2,540,433 while total revenue before tax increased by £223,463 to £1,877,862. This improvement resulted mainly from increases in both net property revenue and investment income.

PROSPECTS The Group is now benefiting from the demand for offices and shops as well as increases in rental values. These factors should result in a continuing steady increase in net revenue and dividends.

Salisbury House, London EC2

## WAGON INDUSTRIAL HOLDINGS LIMITED

Notice is hereby given of the appointment of Lloyds Bank Limited as Registrar.

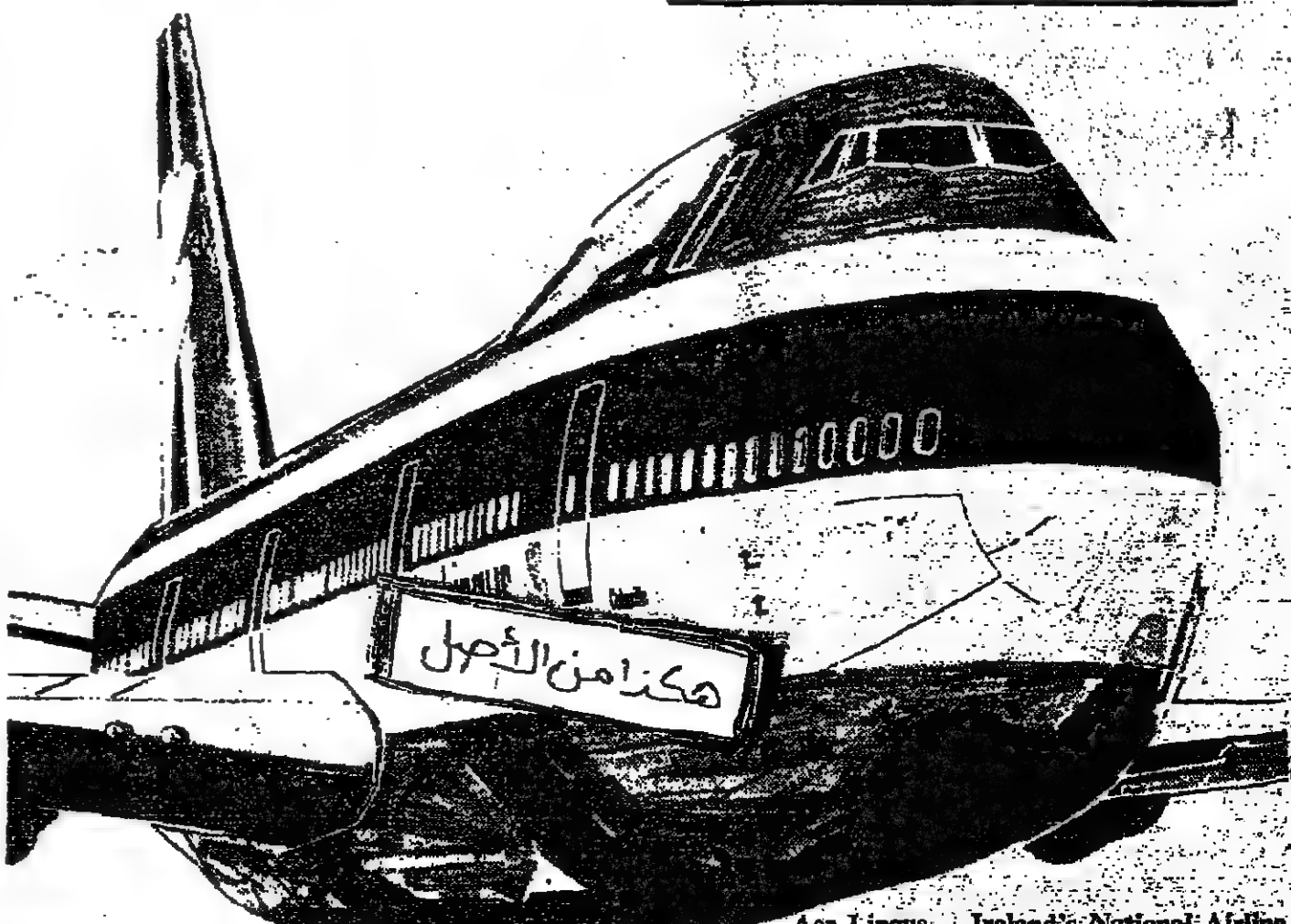
All documents for registration and correspondence should in future be sent to the address below:

A.J. SMITH & C.S.  
Group Secretary



Lloyds Bank Limited,  
Registrars Department,  
Goring-by-Sea,  
Worthing, West Sussex BN12 6DA.  
Telephone: Worthing 502541  
(STD code 0903)

Lloyds Bank Limited



Aer Lingus—Ireland's National Airline



Financial Times Wednesday August 1 1979

# CURRENCIES, MONEY and GOLD

## Pound slumps

STERLING RECORDED its biggest one-day fall since January 1978 in currency markets yesterday as a combination of factors prompted a 6.55c fall against the dollar to \$2.2950. It was also weak against other major currencies and its trade-weighted index fell to 72.1 from 73.8, having stood at 72.8 at noon and 72.9 in the morning. The pound was already showing a softer tendency in overseas markets, prompted by improved sentiment in the dollar. With a general switch out of long sterling positions and heavy liquidation of short dollar holdings, the pound's fall met little resistance, and any activity by the Bank of England at the lower levels was fairly insignificant. Sterling's recent sharp rise was probably overdone, and it seemed probable that any correction was likely to be equally dramatic. Against the dollar it opened at \$2.2900 and rose to \$2.2945 before easing to \$2.2920 before 10 am. By lunchtime it had steadied at around \$2.2900 before plunging 3 cents to \$2.2870. Trading at this point became very patchy and volatile, and sterling was quoted at times with half-cent spreads. By mid-afternoon it had recovered slightly to \$2.2900, but with business thinning out and financial centres in Europe closing, it fell a further cent to its closing level. Against the mark the pound finished at DM 4.225, sharply down from DM 4.235, and the DM 4.2425, while the French franc was quoted at FF 9.87, compared with FF 9.875. Apart from its performance against sterling, the dollar showed little overall movement. Dealers were unwilling to commit themselves to a firm trend in the U.S. unit, but pointed out that sentiment had improved noticeably since the nomination of Mr. Paul Volcker as chairman of the Federal Reserve Board, and his firm commitment to reduce inflation. The dollar finished at DM 1.8335 against DM 1.8325, but had been quoted higher at DM 1.8350 earlier in the day. Similarly against the Swiss franc it closed at Sfr 1.6500 from Sfr 1.6475 after a high for the day of Sfr 1.6580. So although, at first, the dollar finished some way below its best levels, on Bank of England figures, its trade-weighted index rose to 74.6 from 74.3.

FRANKFURT—The dollar was higher yesterday against DM 1.8335, compared with DM 1.8325, and there was no intervention by the Bundesbank. In the absence of any central bank support the U.S. unit rose to DM 1.8410 during the morning, backed by favourable comments from the U.S. Administration on the need for a stable dollar to combat inflation. Elsewhere sterling fell sharply at the fixing to DM 4.1850 from DM 4.2250. MILAN—The lira was sharply weaker against the dollar but improved against sterling and the Swiss franc. The dollar finished slightly firmer against the yen yesterday at ¥216.875 compared with ¥216.825 on Monday. After opening at ¥217.50, the U.S. unit touched ¥217.50 on favourable comments by Mr. Paul Volcker, chairman designate of the Federal Reserve Board, over his intention to combat inflation by reducing money supply growth. However, the dollar failed to maintain its higher levels and ended on a note with the settlement of export transactions. Trading was described as being particularly heavy.

THE POUND SPOT AND FORWARD					
July 31	Day's spread	Close	One month	% Three months	% p.a.
U.S.	2.2970-2.2985	2.2970-2.2980	0.78-0.88c pm	3.90	1.32-1.52 pm
Canada	2.6270-2.6275	2.6270-2.6280	0.78-0.88c pm	3.34	2.05-1.56 pm
Nethld.	4.51-4.53	4.52-4.53	2/-1/-c pm	6.30	6/-5/-c pm
Belgium	65.80-67.30	65.85-66.05	20-10c pm	2.91	50-40c pm
Denmark	11.85-12.10	11.87-11.89	24-10c pm	1.28	14-13c dis
Ireland	1.025-1.100	1.030-1.100	20-30c dis	1.21	80-50c dis
W. Ger.	4.11-4.22	4.11-4.12	31-25c pm	3.08	9-3 pm
Portugal	109.80-111.75	109.85-110.05	40-100c dis	-7.08	120-220 dis
Spain	165.85-171.25	165.90-165.95	280-300c dis	-26.65	720-520 dis
Italy	1,841-1,853	1,842-1,844	2/-4/-c dis	-1.46	9-11 dis
Norway	11.23-11.55	11.24-11.26	5/-3/-c pm	5.02	18/-13/-c pm
France	9.87-9.91	9.87-9.87	2/-1/-c pm	2.51	6-5 pm
Sweden	8.47-8.65	8.47-8.49	20c pm	1.27	4-2 pm
Japan	488-500	488-489	4/-1/-c pm	8.75	10.85-10.50 pm
Austria	30.25-30.55	30.24-30.34	22-12c pm	3.72	52-52c pm
Switz.	2.72-2.83	2.73-2.74	3/-2/-c pm	10.44	172-111c pm
Belgian rate is for convertible francs. Financial franc 68.40-68.40c pm.					
Six-month forward dollar 3.38-3.28c pm; 12-month 5.50-5.40c pm.					

THE DOLLAR SPOT AND FORWARD					
July 31	Day's spread	Close	One month	% Three months	% p.a.
UK	2.2970-2.2985	2.2970-2.2980	0.78-0.88c pm	3.90	1.32-1.52 pm
Ireland	2.0375-2.0480	2.0400-2.0450	1.25-1.05c pm	6.73	3.18-2.90 pm
Canada	2.6270-2.6275	2.6270-2.6280	0.78-0.88c pm	3.34	2.05-1.56 pm
Nethld.	2.0180-2.0210	2.0180-2.0190	0.43-0.38c pm	2.40	1.08-0.98 pm
Belgium	29.28-29.35	29.28-29.30	1/-c dis	-0.71	3-4 dis
Denmark	5.225-5.2300	5.225-5.2300	1.00-1.00c dis	-1.25	5/-5/-c dis
W. Ger.	1.8330-1.8395	1.8330-1.8340	0.84-0.74c pm	5.14	2.24-2.14 pm
Portugal	48.80-49.40	48.10-49.20	38-48c dis	-10.48	55-140 dis
Spain	65.85-66.17	65.85-66.17	75-25c dis	-34.49	480-480 dis
Italy	820.40-822.00	820.40-821.00	4/-3/-c dis	-4.34	9-10 dis
Norway	5.0440-5.0480	5.0470-5.0480	0.28-0.35c pm	1.42	2.45-1.55 pm
France	4.2300-4.2350	4.2300-4.2320	0.28-0.35c pm	1.42	2.45-1.55 pm
Sweden	4.205-4.2080	4.2050-4.2060	0.40-0.60c dis	-1.42	1.70-1.50 dis
Japan	216.85-217.48	216.85-216.85	1.10-0.85c pm	5.27	2.90-2.75 pm
Austria	13.45-13.48	13.45-13.47	5.24-7.00c pm	4.41	13.60-12.90 pm
Switz.	1.6510-1.6525	1.6510-1.6520	1.53-1.25c pm	8.42	4.05-4.05 pm
U.K. Ireland and Canada are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency.					

CURRENCY MOVEMENTS			CURRENCY RATES		
July 31	Bank of England Index	Morgan Guaranty changes %	July 30	Bank %	Special Drawing Rights
Sterling	72.1	-3.5	Sterling	14	0.565137
U.S. dollar	84.8	-8.8	U.S. dollar	114	1.52564
Canadian dollar	80.5	-17.2	Canadian dollar	234	17.5048
Australian dollar	147.1	-15.3	Australian dollar	8	6.85556
Belgian franc	114.2	-12.5	Belgian franc	8	6.85556
Dutch guilder	161.4	-42.3	Dutch guilder	8	6.85556
French franc	195.8	-81.1	French franc	512	5.45659
German mark	121.3	-18.3	German mark	1012	1069.21
Italian lira	65.3	-48.8	Italian lira	7	6.55481
Japanese yen	216.8	-20.8	Japanese yen	8	6.55481
Based on trade-weighted changes from Washington agreement December, 1971 (Bank of England Index=100).					

OTHER MARKETS					
July 31	£	\$	¥	Notes	Notes Rates
Argentina peso	5085-5105	1370-1380	Australia dollar	80-81	80-81
Australia dollar	1.9985-2.0035	0.8800-0.8900	Belgian franc	65-66	65-66
Brazil cruzeiro	65-66	1.20-1.25	Canada dollar	80-81	80-81
Canada dollar	80-81	1.20-1.25	Denmark krone	6.85-6.86	6.85-6.86
Denmark krone	6.85-6.86	1.20-1.25	Deutsche Mark	1.83-1.84	1.83-1.84
Deutsche Mark	1.83-1.84	1.20-1.25	French franc	5.45-5.46	5.45-5.46
French franc	5.45-5.46	1.20-1.25	Gold	1.069-1.070	1.069-1.070
Gold	1.069-1.070	1.20-1.25	Italian lira	1069-1070	1069-1070
Italian lira	1069-1070	1.20-1.25	Netherlands guilder	4.50-4.51	4.50-4.51
Netherlands guilder	4.50-4.51	1.20-1.25	Norway kroner	4.80-4.81	4.80-4.81
Norway kroner	4.80-4.81	1.20-1.25	Portugal escudo	200-201	200-201
Portugal escudo	200-201	1.20-1.25	Spain peseta	166-167	166-167
Spain peseta	166-167	1.20-1.25	Sweden krona	4.75-4.76	4.75-4.76
Sweden krona	4.75-4.76	1.20-1.25	Switzerland franc	1.48-1.49	1.48-1.49
Switzerland franc	1.48-1.49	1.20-1.25	United States dollar	84.8-84.9	84.8-84.9
United States dollar	84.8-84.9	1.20-1.25	Yugoslavia dinar	44.5-44.6	44.5-44.6
Yugoslavia dinar	44.5-44.6	1.20-1.25			

Note given for Argentina is free rate.

## EMS EUROPEAN CURRENCY UNIT RATES

Country	Unit	Rate	% change
Belgium	Franc	33.482	+0.002
Denmark	Krone	7.46032	+0.00032
Germany	Mark	3.36363	+0.00036
France	Franc	6.55957	+0.00057
Dutch	Guilder	2.20371	+0.00071
Italy	Lira	1,936.27	+0.00027
Portugal	Escudo	200.482	+0.00042
Spain	Peseta	166.639	+0.00039
Sweden	Krona	4.75666	+0.00066
Switzerland	Franc	1.48033	+0.00033
UK	Pound	2.24967	+0.00067

## EXCHANGE CROSS RATES

July 31	Pound Sterling	U.S. Dollar	Deutsche Mark	Japanese Yen	French Franc	Swiss Franc	Dutch Guilder	Italian Lira	Canada Dollar	Belgian Franc
Pound Sterling	1.0000	2.2970	4.2250	149.70	6.5596	1.3663	3.7603	1,936.27	0.7036	40.3399
U.S. Dollar	0.4353	1.0000	2.4250	107.58	1.9363	0.7036	1.9363	1,936.27	0.7036	40.3399
Deutsche Mark	0.2368	0.4125	1.0000	35.48	1.9363	0.7036	3.7603	1,936.27	0.7036	40.3399
Japanese Yen	0.0067	0.0093	0.0282	1.0000	1.9363	0.7036	3.7603	1,936.27	0.7036	40.3399
French Franc	0.1524	0.2612	0.1651	0.0516	1.0000	0.7036	3.7603	1,936.27	0.7036	40.3399
Swiss Franc	0.7253	1.2993	0.7253	0.7036	1.0000	1.0000	3.7603	1,936.27	0.7036	40.3399
Dutch Guilder	0.2660	0.4608	0.2660	0.2660	1.0000	0.2660	1.0000	3.7603	0.2660	40.3399
Italian Lira	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	1.0000	0.0005	40.3399
Canada Dollar	1.4286	2.5370	1.4286	1.4286	1.4286	1.4286	1.4286	1.4286	1.0000	40.3399
Belgian Franc	0.0248	0.0435	0.0248	0.0248	0.0248	0.0248	0.0248	0.0248	0.0248	1.0000

## EURO-CURRENCY INTEREST RATES

July 31	Sterling	U.S. Dollar	Deutsche Mark	Japanese Yen	French Franc	Swiss Franc	Dutch Guilder	Italian Lira	Asian \$	Japanese Yen
10 short term	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
7 days' notice	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
Month	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
Three months	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
Six months	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4
One year	12-13 1/4	10 1/2-10 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4	8 1/2-8 3/4

Long-term Eurodollar: two years 10 1/2-10 3/4 per cent; three years 10 3/4-11 per cent; four years 10 3/4-11 per cent; five years 10 3/4-11 per cent nominal closing rates. Short-term rates up call for sterling, U.S. dollars and Canadian dollars; two-day call for guilders and Swiss francs. Asian rates are closing rates in Singapore.

## INTERNATIONAL CAPITAL MARKETS

### New York Fed adds reserves

The New York Federal Reserve Bank injected liquidity into the market yesterday by making overnight repurchase agreements. Federal funds were trading at 10 1/8 per cent at the time, and uncertainty still remained as to the likely Fed target rate. Treasury bill rates were little changed in early trading, with 13-week bills at 9 1/8 per cent compared with 9 1/4 per cent at Monday's auction, and 26-week bills at 9 3/8 per cent against 9 3/4 per cent.

money rates were generally firmer yesterday with call money at 6 1/2-6 3/4 per cent against 6 1/4-6 1/2 per cent and one-month money rising to 6 3/4-6 5/8 per cent from 6 3/4-6 5/8 per cent. The three-month rate was quoted at 6 3/4-6 5/8 per cent compared with 6 3/4-6 5/8 per cent, six-month at 7 3/4-7 5/8 per cent, and 12-month at 7 3/4-7 5/8 per cent from 7 3/4-7 5/8 per cent previously.

BRUSSELS — Deposit rates for the Belgian franc (commercial) were unchanged for one month at 12 1/2 per cent, but rose from 12 1/2 per cent to 12 3/4 per cent for three-month deposits and to 13 1/4 per cent for six-month deposits. The 12-month rate was also firmer at 10 1/4 per cent compared with 10 1/4 per cent previously.

PARIS — Call money rose to 10 1/8 per cent yesterday compared with 10 1/8 per cent on Monday, while longer term rates were unchanged. HONG KONG — Conditions in the money market were generally steady, with call money at 9 1/2 per cent and overnight business dealt at 9 1/2 per cent.

## UK MONEY MARKET

### Moderate help

Bank of England announced Lending Rate 14 per cent (since June 12, 1979). Day-to-day credit was in short supply in the London money market yesterday, and the authorities gave assistance by making overnight repurchase agreements. Treasury bills and a small amount of corporate bonds were bought in addition to repurchase agreements at 9 1/8 per cent for 26-week bills against 9 3/4 per cent.

tempered as moderate. Discount houses were paying 13 1/4 per cent for secured call loans at the start, and closing balances were taken down to 13 per cent. The market was faced with a small net take-up of Treasury bills to finance, with moderate funds also drained in respect of end-of-month bill payments. On the other hand, banks brought forward balances a little way above target and there was a moderate excess of Government

disbursements over revenue transfers to the Exchequer. In the interbank market, overnight loans opened at 13 1/4 per cent and rose on the forecast to 14 1/4 per cent before easing slightly to 13 1/4 per cent, where the afternoon rates tended to ease, with closing balances taken between 12 per cent and 13 per cent. Rates in the table below are nominal in some cases.

## LONDON MONEY RATES

on Monday afternoon.										
July 31, 1978	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Authority negotiable bonds	Finance House Deposits	Company Deposits	Discount market deposits	Treasury Bills \$	Eligible Bank Bills \$	Fine Trade \$
Overnight		12-14 1/4	14 1/4-14 1/2				14 1/2	12-14		
5 days notice										
7 days notice										
One month	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4
Three months	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4
Six months	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4
Nine months	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4
One year	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4
Two years	14 1/4-14 1/2	14 1/4-14 1/2	14 1/2-14 3/4	14 1/2-14 3/4	14 1/2	14 1/2	14 1/2	13 1/4	14 1/4	14 1/4

MONEY RATES	
NEW YORK	
Prime Rate	11.5-11.75
Fed Funds	10.25-12
Treasury Bills (13-week)	9.15
Treasury Bills (28-week)	8.28
GERMANY	
Discount Rate	5
Overnight Rate	5.15
One month	6.05
Three months	6.45
Six months	6.85
One year	7.25



## INTERNATIONAL COMPANIES and FINANCE

Companies and Markets

## NORTH AMERICAN NEWS

## Flintkote agrees to \$375m offer

STAMFORD — Flintkote the building materials group and Kohlberg Kravis Roberts (KKR) have agreed in principle for a group of investors, through a corporation to be organized by KKR, to acquire Flintkote for \$32 a share cash.

At June 30, Flintkote had about 7.2m shares of common outstanding which puts an immediate value of \$374.4m on the bid. An additional 146,500 shares are issuable on conversion of Flintkote's outstanding convertible preferred stock.

The acquisition is subject to arrangement of necessary financing and disposition of certain assets by Flintkote.

Flintkote said KKR has had a favourable preliminary indication from a major financial institution that it would provide a significant portion of the financing.

The transaction is also subject to completion of a definitive agreement, filings with regulatory bodies, and approval of the agreement by Flintkote's Board and shareholders.

KKR will receive certain minimum fees from Flintkote which will be reimbursed by the investor group on completion of the transaction.

Flintkote makes basic materials and products for the building and construction industries in the U.S. and Canada.

KKR is a New York-based investment firm which, with affiliates, is a principal investor in a number of industrial companies.

A group headed by KKR recently completed the acquisition of Worldwide Industries for \$750m.

## Further cutbacks may hit Liggett's second half profit

BY OUR FINANCIAL STAFF

SECOND QUARTER net income of the cigarette, tobacco, drinks and pet food concern Liggett Group were hurt by an after-tax charge of \$3.6m or 42 cents a share as a result of cutbacks associated with a planned consolidation of the group's domestic cigarette operations. The company said that additional charges to future earnings may result if further reductions are necessary.

The group's net income shows a decline from \$23.8m or \$2.58 a share to \$23.3m or 23 cents a share, on sales of \$276m against \$257.7m. But this picture is distorted by the sale of the foreign cigarette business last year.

Second quarter earnings for 1978 included an after-tax gain of \$30.4m or \$3.34 a share from the sale, earnings from the

business sold of \$2.3m or 26 cents a share, and an after-tax charge of \$17.3m or \$1.91 a share for the write-down of goodwill.

Excluding these items, net earnings would have been \$10.9m or \$1.26 a share in the current second quarter, compared with \$8.5m or 89 cents last time.

For the first six months, Liggett turned in net income of \$19.9m or \$2.29 a share compared with \$33m or \$3.55 a share. First half sales advanced from \$482.5m to \$510.1m.

Cigarette sales in the quarter continued to decline, but operating income was higher.

Sales of chewing and smoking tobacco rose slightly, but operating income was lower.

Mr. Raymond J. Mulligan, president, said that sales and operating income from the company's main brands were significantly lower due to reduced buying by the trade in resistance to price increases, but these lower results were more than offset by higher operating income from cigarettes and pet foods.

Another major tobacco company, U.S. Tobacco, had second quarter net income of \$7.65m or 88 cents a share compared with \$8.87m or 78 cents, from sales of \$56.93m against \$51.75m. First half net income of \$15.47m or \$1.74 a share was also a record, and compared with \$13.65m or \$1.55 last time. Sales for the six months rose from \$101.23m to \$112.05m.

Projections "slightly upward" because results for the first half were better than expected. As previously reported, earnings for the first six months of 1979 were \$114.7m or \$2.11 a share on sales of \$2.49bn.

Earnings for the full year are expected to rise by 15 per cent to 20 per cent over last year's restated \$169m or \$4.01 a share and results would "probably be more on the upside" of that estimate and could increase by more than 20 per cent. Earnings for 1978 were restated to reflect changes in accounting for oil and gas profits and a pooling of interests from acquisitions.

Grace had revised its earnings projections "slightly upward" because results for the first half were better than expected.

Grace's 99 per cent interest in Barilla S.p.A., one of the world's largest pasta producers, was sold for \$60m to Finbarilla, a joint Italian-Swiss holding company headed by Italian industrialist, Sig. Pietro Barilla.

The Barilla family had sold the pasta company to Grace in 1971. The sale of Barilla is the last in a series of divestments of Grace's products businesses.

The loss from the now completed sale of its Italian pasta business, according to Mr. Charles F. Ehrhart, Jr., executive vice-president.

Total sales for the year are expected to top the \$5bn mark for the first time. Sales in 1979 were \$4.81bn.

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## Asbestos loses appeal on State takeover

MONTREAL — Asbestos Corporation has lost a bid for a temporary injunction to block its possible expropriation by the Quebec government.

Justice Albert Mayrand of the Quebec Court of Appeals refused the injunction, citing a legal requirement that three judges preside in such a case.

Asbestos Corporation which is 54.6 per cent owned by General Dynamics, lost its bid for a permanent injunction in Superior Court last week.

It appealed to Justice Mayrand while the Full Appeals Court is adjourned for the summer. The company has said it will appeal to the Full Appeals Court when the court resumes deliberations in September.

Quebec has threatened to expropriate Asbestos Corporation if it cannot reach agreement with General Dynamics on terms of a takeover.

Reuter

## Dillon share split

Dillon Companies, the retail group, pushed earnings up by 31 per cent to \$33.8m, or from \$17.2 to \$26.6 in the year to June 30, on sales of \$1.79bn against \$1.47bn. A three-for-two share split and a quarterly dividend of 27 cents on the split shares was also announced.

Conoco spending

Conoco has increased its 1979 capital spending programme by \$130m to a total of \$1.5bn, compared with \$1.1bn in 1978, Reuter reports from Stamford.

## U.S. Steel lifts earnings but sees gloomy outlook

BY DAVID LASCELLES IN NEW YORK

U.S. STEEL, the largest U.S. steelmaker, has notched up its fifth consecutive quarterly rise in profits. Second quarter net income was \$145.4m or \$1.69 per share, up 24 per cent on last year's \$117.3m or \$1.38 a share while sales rose \$700m to \$5.5bn.

These results brought six month earnings to \$187.4m or \$2.19 a share, and revenues to \$6.7bn. Comparable figures for the first half of last year were \$58.6m or \$0.69 a share, and \$5.3bn.

In the quarter, U.S. Steel produced 8.5m tons, up slightly on last year's 8.4m, and shipped 6m tons compared to the previous year's 5.4m. These shipments were the highest since the third quarter of 1974.

Mr. David Roderick, chairman, said that although U.S. Steel now had five quarterly earnings improvements behind it, return on sales and equity were still substantially below manufacturing industry averages.

Mr. Roderick also indicated that the immediate business prospects were gloomy. The steel order rate has fallen off "with no immediate signs of an upturn," he said, adding that he is concerned about the shipments level for the fourth quarter. Mr. Roderick warned that as demand softens in the second half of the year, it is even more imperative that the U.S. Anti-Dumping Laws be vigorously enforced.

## INTERNATIONAL CAPITAL MARKETS

## DM bond yields move lower

BY FRANCIS CHILES

THE WORLD BANK is arranging a DM 200m private placement with a bullet maturity of 10 years through Deutsche Bank, priced at 99 1/2 to 100 per cent, the issue has been well received and early pre-market quotes suggest it will trade at a discount of 1 to 1 1/2 of a point.

The yield this bond offers to investors is the lowest for DM-denominated paper in at least four months.

An issue for the Council of Europe with an average life of seven years floated last April yielded 7.25

per cent while a Megal Finance bond (average life nine years) floated last February offered 7.14 per cent.

Foreign DM bonds were firm yesterday while good demand for domestic DM issues allowed the Bundesbank to sell DM 20m worth of paper.

Prices in a quiet Swiss franc sector eased slightly. Union Bank of Switzerland has arranged a SwFr 50m six-year private placement for Golden Eagle (Caracas), a subsidiary of Ultramar. The coupon is 4 1/2 per cent and the bonds have been priced at par.

A SwFr 100m bond for Shikoku Electric Power Company is expected through the same bank later this week.

Prices of sterling bonds fell by up to a full point as today's fall in the UK currency encouraged selling. The 12 1/2 per cent 1981 bond closed at 98 1/4 yesterday. On Friday it traded at 98 1/4.

In the dollar sector prices were marked up by an average of 1/2 per cent but there was no real buying interest. Activity was also at a low level in the floating rate note sector.

## Eurocurrency loan for EFIM

BY JOHN EVANS

EFIM, the Italian state holding company in the engineering and construction sectors, is raising \$150m via a ten year syndicated loan on the Eurocurrency markets.

The agency has not so far tapped in the Eurocurrency markets in its own name before. The funds will be used for general capital expenditure purposes.

The credit will carry a spread of 1 per cent for the first two years, 1 1/2 per cent for the next two years, and 2 per cent for the last four years.

The lead managers are S. G. Warburg, Soditic and Midland Bank.

Elsewhere, one of Mexico's leading private companies, Grupo Industrial Alfa, is arranging \$75m from a banking group headed by Bank of America, Deutsche Bank and Grindlays Bank. The ten year facility carries spreads ranging between 1 1/2 and 2 per cent.

The Government of Fiji has awarded a mandate to Continental Illinois. Limited to raise

\$38m. The 10 year loan reportedly carries a spread of 1 per cent for the first six years and 1 1/2 per cent for the remaining four years.

In the Middle East, Dammam Babcock has arranged a \$7m Kuwaiti dinar (\$15m) medium term facility, managed by a group of Kuwaiti banks, among the National Bank of Kuwait.

It is understood the loan will be used in connection with contracts awarded to the German company in the Middle East, particularly Kuwait.

## FT INTERNATIONAL BOND SERVICE

The list shows the 300 latest international bond issues for which an adequate secondary market exists. For further details of these or other bonds see the complete list of Eurobond prices published on the second Monday of each month.

Closing prices on July 31

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## Genossenschaftliche Zentralbank

## Aktiengesellschaft

Vienna



U.S. \$40,000,000

Floating Rate Notes Due 1989

In accordance with the provisions of the Notes, notice is hereby given that for the initial three month interest period from 1st August, 1979 to 1st November, 1979 the Notes will carry an interest rate of 11 1/2 per annum. The relevant Interest Payment Date will be 1st November, 1979. The Coupon Amount per U.S. \$1,000 will be U.S. \$29.23.

Credit Suisse First Boston Limited

Agent Bank

## NOTICE

To the holders of the Floating Rate London Dollar Certificates of Deposit due August, 1982, of:

## DOW BANKING CORPORATION

108, Fenchurch Street, London, EC3.

## EUROPEAN BANKING COMPANY LIMITED

ALLEN HARVEY & ROSS INVESTMENT MANAGEMENT LTD.

45 Cornhill, London EC3V 3PB. Tel. 01-623 6314

Index Guide as at July 26, 1979

Capital Fixed Interest Portfolio 118.37

Income Fixed Interest Portfolio 105.00

This advertisement complies with the requirements of the Council of The Stock Exchange.

## Krung Thai (Cayman) Limited

(Incorporated with limited liability in the Cayman Islands)

U.S. \$25,000,000

## Guaranteed Floating Rate Notes due 1984

Unconditionally and irrevocably guaranteed as to payment of principal and interest by



## Krung Thai Bank Limited

(Incorporated with limited liability in the Kingdom of Thailand)

The following have agreed to subscribe or procure subscribers for the Notes:

Manufacturers Hanover Limited

Abu Dhabi Investment Company

Banque Nationale de Paris

County Bank Limited

Genossenschaftliche Zentralbank AG

Vienna

Arab Malaysian Development Bank Berhad

Chemical Bank International Limited

DBS—Daiwa Securities International Limited

IBJ International Limited

The Notes, issued at 100 per cent, have been admitted to the Official List by the Council of The Stock Exchange subject only to the issue of the Notes.

Full particulars of the Company and the Notes are available in the External Statistical Service and may be obtained during usual business hours up to and including 15th August, 1979 from the brokers to the issue:

R. Nivison &amp; Co.

25 Austin Friars

London EC2N 2JB

1st August, 1979

مكتبة الأهل



## Nederhorst liquidators find new owners

By Charles Kitchner in Amsterdam

THE Hollandsche Beton Groep (HBG), the Dutch construction concern, has agreed to take over a large part of the failed Nederhorst building group. This brings an end to several months of efforts by Nederhorst's liquidators, the Economics Ministry and the unions to find purchasers for Nederhorst's building division.

Negotiations with the various purchasers for the Nederhorst companies, which had a combined turnover of nearly FL 1bn (\$500m) in 1978, are expected to be completed within a few months, the Economics Ministry said. After first attempting to sell off Nederhorst's building division as a single unit, Mr. G.J. Van Aardenne, the Economics Minister, decided in May that it would have to be split up.

Most of the Multibouw division, which is involved mainly in housing construction, will be taken over by the Van der Veen-Baker Group of Rotterdam while three of the companies will be acquired by their former owners or the present management. The larger Koninklijke Nederhorst Bouw division, employing 5,900 of the total 7,300 workforce, will go to HBG.

The buyers have given guarantees to maintain employment at the companies they have acquired. The talks aimed at finding purchasers for Nederhorst, which started when the OCEM trading and construction group said it would not go ahead with the planned integration of Nederhorst, have involved most major contractors in the Netherlands as well as some abroad, including the UK Wimpey group.

OCEM and the Dutch Government first drew up a rescue plan for Nederhorst in 1978 when mounting losses threatened its existence.

Heat Stevin Constructors Ltd., owned by the Dutch construction and dredging group Heat Stevin and by Gebr. Van Hoeswijk, has received a FL 125m (\$62m) order to build five hotels in Brazil. The contract was awarded by Grupos Queros Imoveis of Brasilia. The hotels, to be built in five different cities.

## Renaud financing

Renaud unit, St. Financiere et Fondeurs, is raising a FF 200m floating rate note in the Paris market. The financing will carry a maturity of five years. Reuters reports from Paris.

## Matra takes major stake in telephone industry

By David White in Paris

THE FRENCH Matra group is to take an important role in the European telephone equipment industry by acquiring control of the privately-owned Depapepe concern.

Matra, which has diversified interests in missiles, motor engineering, electronics and other high-technology sectors, has reached agreement to take a majority stake in three companies of the Depapepe group by the end of the year. The companies produce mainly telephone receivers and intercom systems, and between them control about half of the French market for receivers, ahead of the ITT subsidiary CGIT and Thomson Ericsson, the former offshoot of Ericson of Sweden.

The Depapepe group, which had a turnover of FF 425m (\$100m) last year, is described as the leading European manufacturer in its field.

Matra gave no details of its agreement, reached in collaboration with Banque de l'Indochine et de Suez. The move marks the second stage in Matra's effort to build a homogeneous communications division, with a broad production and marketing base.

In May it took over Petrel, a company specialising in telephone-linked services and products, such as small electronic switchboards and radiocommunications, with 1978 sales of about FF 100m. This development ties in with a joint venture between Matra and the U.S. Harris group, Matra-Harris, set up at the beginning of this year to produce integrated circuits.

Matra expects its turnover in the communications field this year to be well over FF 600m, compared with FF 44m, out of total group sales of FF 2.2bn, in 1978. It envisages developing new products in the sector, including communications facilities for space programmes, in which it is already active.

The Matra parent company has up to now had an experimental communications division, producing prototype models for mechanised telephone and postal systems, videophones, telecopiers and the like but without a major manufacturing base.

The three companies, Constructions Telephoniques Depapepe, Societe Industrielle Depapepe and Societe des Telephones Picard Lebas, employ about 3,000 people in factories concentrated mostly in Brittany. Another French group, Societe Anonyme des Telecommunications, had also shown interest in taking over the family-held Depapepe interests.

## Strike hits Aer Lingus earnings

By Stewart Dalby in Dublin

AER LINGUS, the Irish state-owned airline, earned a net profit of IR£4.02m (\$8.26m) in the year ended March 1979 after charging depreciation of IR£7.09m and interest of IR£3.38m.

The results mean that despite higher turnover (IR£190m) there has been a drop in net profits since 1977-1978 when the figure achieved was £4.62m in sterling. Given the appreciation in sterling against the Irish punt the profit shortfall is even greater.

Presenting the annual general report yesterday, Mr.

Patrick Hayes, chairman, said that while the net profits might appear reasonably satisfactory a 54-day strike early in 1978 had prevented the airline from reaching the much higher level of profit it needed and which it could have managed.

Had it not been for the strike—which consisted mostly of ground staff—the net profit would have been closer to £5m in sterling. Losses seem to have occurred on the Atlantic route last year despite the fact the airline carried a record number of 2.5m passengers which was an increase of 11 per cent over the previous year.

According to the chief executive it now seems impossible to avoid losses on year round operations between Ireland and North America even with a record passenger load factor of 70 per cent. Moreover, the outlook for the current year is clouded by a rise of around a quarter in revenue for the current year to IR£225m following solid traffic performance on almost all routes. But since March 1979, fuel costs had risen by 70 per cent, giving Aer Lingus cause for serious concern.

The airline is budgeting for a rise of around a quarter in revenue for the current year to IR£225m following solid traffic performance on almost all routes. But since March 1979, fuel costs had risen by 70 per cent, giving Aer Lingus cause for serious concern.

## Pirelli gets go-ahead for restructuring programme

By Paul Berts in Rome

THE ITALIAN interministerial Committee for Industrial Planning gave the go-ahead yesterday to a L450m (\$7.9m) financial restructuring programme for Industrie Pirelli, the Italian operating company in the Dunlop-Pirelli Union.

The operation will involve the increase of the company's capital from L1,000m to L1,450m and the consolidation of some L1,000m of Industrie Pirelli's debt at an interest rate of about 7.5 per cent.

The capital increase will see the injection of some L400m from a consortium of leading Italian banks led by the Milan-based medium term credit institute, Mediobanca. The balance of L50m will be subscribed by Pirelli.

This is a variation on the original financial restructuring proposals for Industrie Pirelli which envisaged an increase of the company's capital to L1,650m or L1,000m less than in the revised plan.

## Norwegian chemical group lifts profit

By Fay Glesker in Oslo

DYNO INDUSTRIES, Norwegian manufacturers of chemicals and explosives, reports higher turnover and slightly improved profits during the first half of this year. Turnover increased by Nkr 104m to Nkr 789m (\$144m), though more than half the rise reflected the acquisition of new companies. Export sales rose more sharply than sales to the Norwegian market.

## Advance by Sumitomo Metal

TOKYO — Sumitomo Metal Industries, the Japanese steel concern, raised its consolidated net income by 165 per cent in the year to March 31, to Y17.17bn (\$80m), from Y6.47bn the previous year. Sales rose to Y1,070bn (\$50m), from Y1,010bn.

Sumitomo attributed the better performance to a sharp recovery in steel prices on domestic and overseas markets, offsetting exchange losses stemming from the yen's appreciation against the U.S. dollar.

The company is unable to predict its consolidated business result for the current year, because of uncertain factors including crude oil price increases, foreign exchange fluctuations, and a higher official discount rate in Japan.

But the company expects income before tax and special items in the first-half, up to September 30 to come to at least Y40bn, compared with Y35.67bn in the whole 1978 business year. Reuter

## Premium income up at Harel

By L. Daniel in Tel Aviv

HAREL, the Israeli insurance company which hitherto has concentrated entirely on life business, reports that it increased its premium income in 1978 by 150 per cent to IR£5.5m (\$1.4m) and expects a similar growth rate this year.

Profits from life insurance business increased by 115 per cent to IR£1m last year, and its overall after-tax profit by 235 per cent to IR£2.6m helped by investment income.

## Domestic sales lift Matsushita

By Yoko Shibata in Tokyo

MATSUSHITA Electric Industrial, the world's largest manufacturer of consumer electronic and electric products, raised its consolidated net profits by 4 per cent to Y24.59bn (\$1.14m) in the second quarter, on sales up 7 per cent to Y576.64bn (\$2.7bn). The totals are records for any quarter. Share profits were Y21.1, against Y20.3 in the second quarter of the previous year.

The gain in profits and sales was chiefly the result of brisk domestic sales of high value-added products which more or less covered a substantial decline in exports, of 10 per cent to Y130,810m.

Consolidated net profits for the first six months, to May 20, gained 4 per cent to Y44.04bn on consolidated sales of Y1,105bn, up 7 per cent over a year earlier. Per share profit for the first six months were Y37.8, compared with Y36.5.

A sizeable gain in exports of video tape recorders (VTR) failed to offset the drop in colour television set shipments, brought about by intensified trade restrictions and currency fluctuations.

Exports in the first six months dropped by 10 per cent to Y256.53bn, despite strengthening production of parts and products for its 29 overseas manufacturing companies. Only four overseas sales and manufacturing subsidiaries were included in Matsushita's consolidated results.

The number of consolidated companies increased to 120, from 116 a year ago including 101 domestic consumer sales companies.

It was announced in late June that Matsushita had raised net profits at the parent company level in the first half by 17 per cent to Y30.84bn, on sales up 7.2 per cent to Y506.02bn.

## Setback for SAAN

By Jim Jones in Johannesburg

SOUTH AFRICAN Associated Newspapers (SAAN), the publisher of the Rand Daily Mail, Financial Mail, and Sunday Times—has seen its first half results set back by a combination of fuel, labour and newspaper cost increases. In the six months to June 30 operating profits fell 39.4 per cent to R611,000 (\$737,000), from R1,011m in the same period last year. This arose despite higher advertising revenue, which was the main contributor to an overall revenue increase.

Mr. Clive Kinsley, the managing director, expects enhanced advertising revenue in the second six months' trading period, with a resulting profit improvement. But although cover prices of the group's daily newspapers have been increased, thereby offsetting, to an extent, higher distribution and newspaper costs, the management has maintained the interim dividend at 8 cents, from earnings of 24 cents, against 1978 first-half earnings of 36.5 cents.

Last year, on second half earnings per share of 74.8 cents, an unchanged 25 cents final dividend was paid. With this year's unchanged interim dividend Johannesburg analysts feel that the final pay-out will be maintained.

## Cheung Kong forecasts upturn

By Philip Bowring in Hong Kong

CHEUNG KONG (Holdings) a major Hong Kong property development group, reported a decline in first half profits, but forecast a significant increase for the full year. Because of a low completion rate, first-half earnings were only HK\$38.34m (US\$7.4m), against HK\$79.02m a year earlier.

A rash of completions in the second-half, it said, would boost recurrent full-year earnings to not less than HK\$200m, against HK\$182.6m in 1978. In addition, Cheung Kong made extra-

ordinary gains of HK\$136.2m in the first-half, a period when the property market remained very buoyant, compared with HK\$50.5m in the same period of 1978.

The interim dividend reflects the confidence about the outcome for the year as a whole. It will be 16 cents, against 15 cents, on capital increased by a one-for-five bonus issue.

Meanwhile, Green Island Cement, a Cheung Kong associate and Hong Kong's sole cement manufacturer, was

another beneficiary of the property and building boom. Its first-half profit more than doubled to HK\$48.9m, from HK\$18.9m, before extraordinary gains of HK\$80.8m, against HK\$3.4m. An interim dividend of 80 cents was recommended, three times the year earlier level—on capital increased by a one-for-five bonus issue.

Green Island expects the second-half to be even better than the first, pointing to a total of around HK\$100m for the year against HK\$43.6m.

## Decline in interest rates aids Mitsubishi

By Richard C. Hanson in Tokyo

MITSUBISHI CORPORATION, Japan's largest trading company, raised its consolidated net income in the year to March 31 by 6.7 per cent to Y23.7bn (\$110m), but total trading transactions dipped 4.9 per cent to Y9,276bn (\$43bn). The increase in income was mainly the result of a decline in net interest expense and in provisions for doubtful receivables.

Like the other major trading companies, Mitsubishi has been hit by a shrinkage in export and import business. Imports were down 12.6 per cent and exports 7.7 per cent, while business outside Japan was off 4.9 per cent.

Domestic sales increased slightly in volume and relative importance—up 0.8 per cent to 47.2 per cent of the total, from 44.5 per cent the previous year.

Most major product categories showed declines, with machinery (18.1 per cent of the total) down 2.4 per cent, fuels down 15.1 per cent (for a 15.9 per cent share) and foods off 2.5 per cent (14.8 per cent).

The drop in business arose principally from the falling value of the dollar against the yen over most of the fiscal year. Conversely, the subsequent decline in the value of the yen since late 1978 cut the margin of the sales drop.

Sales this year will probably rise to about the Y10,000bn level as a result of the depreciation of the yen.

Officials at the company, however, are predicting cautiously that overall net income will remain at last year's level.

On a non-consolidated basis, trading transactions declined 5.3 per cent to Y8,500bn—the second annual decline in a row—while net profit was up only a fraction to Y16.1bn.

## Yen CD issue rise in June

TOKYO — Japanese banks belonging to the Federation of Bankers Associations issued yen-based negotiable certificates of deposits totalling Y250.50bn in June, increasing their outstanding balance of CD issues to Y707.90bn (equivalent to \$3.3bn), the Bank of Japan announced.

Of the total, City banks issued Y114.30bn, to increase their outstanding balance to Y453.10bn, local banks Y94.50bn, to Y158.20bn, trust banks Y16.20bn, to Y73.20bn, and long-term credit banks Y25.50bn, to Y43.40bn. Reuter

All of these securities having been sold, this announcement appears as a matter of record only.

NEW ISSUE

New Issue / July, 1979

U.S. \$150,000,000

Canadian National Railway Company

(Wholly owned by the Government of Canada)

9.70% Sinking Fund Debentures Due 2004

Interest payable January 15 and July 15

Principal and interest payable in The City of New York in lawful money of the United States of America.

Salomon Brothers Greenshields & Co Inc McLeod Young Weir Incorporated

The First Boston Corporation Goldman, Sachs & Co.

Lehman Brothers Kuhn Loeb Merrill Lynch White Weld Capital Markets Group

A. E. Ames & Co. Atlantic Capital Corporation Bache Halsey Stuart Shields

Basle Securities Corporation Bear, Stearns & Co. Blyth Eastman Dillon & Co.

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Donaldson, Lufkin & Jenrette Drexel Burnham Lambert E. F. Hutton & Company Inc.

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Smith Barney, Harris Upham & Co. UBS Securities Inc. Warburg Paribas Becker

Wertheim & Co., Inc. Dean Witter Reynolds Inc. Wood Gundy Incorporated

Beil Gouinlock Incorporated Midland Doherty Inc. Nesbitt Thomson Securities, Inc.

Pittfield, Mackay & Co., Inc. Richardson Securities, Inc.

ABD Securities Corporation Alex. Brown & Sons Daiwa Securities America Inc.

A. G. Edwards & Sons, Inc. Equitable Canada EuroPartners Securities Corporation

Robert Fleming Hudson Securities, Inc. Kleinwort, Benson

Ladenburg, Thalmann & Co. Inc. Levesque, Beaubien Inc.

Moseley, Hallgarten, Estabrook & Weedon Inc. The Nikko Securities Co.

Nomura Securities International, Inc. Oppenheimer & Co., Inc. Wm. E. Pollock & Co., Inc.

Scandinavian Securities Corporation Stuart Brothers Thomson McKinnon Securities Inc.

Tucker, Anthony & R. L. Day, Inc. Yamaichi International (America), Inc.

New Japan Securities International Inc. Nippon Kangyo Kakumaru International, Inc.

Sanyo Securities America, Inc.

This Notice has been sold outside the United States of America. This announcement appears as a matter of record only.

NEW ISSUE

April, 1979

US \$35,000,000

Texas International Airlines Capital N.V.

Guaranteed Floating Rate Notes Due 1986

Unconditionally Guaranteed as to Payment of Principal and Interest by

Texas International Airlines, Inc.

Smith Barney, Harris Upham & Co.

Amsterdam-Rotterdam Bank N.V.

Banque de Paris et des Pays-Bas

Genossenschaftliche Zentralbank AG

Algemene Bank Nederland N.V.

Banca Nazionale del Lavoro

Bank Leu International Ltd.

Banque Continentale du Luxembourg S.A.

Banque de l'Indochine et de Suez

Banque de Neulize, Schlumberger, Mallet

Banque de l'Union Europeenne

Bayrische Landesbank Girozentrale

Caisse des Depots et Consignations

Compagnie de Banque et d'Investissements (Underwriters) S.A.

County Bank

Credit Lyonnais

Dow Banking Corporation

Antony Gibbs Holdings Ltd.

Investitions- und Handels-Bank

London & Continental Bankers

Morgan Grenfell & Co.

Postipankki

Schroder, Munchmeyer, Hengst & Co.

N.Y. Slavenburg's Bank

Sparbankernas Bank

Trade Development Bank Overseas Inc.

J. Voutabel & Co.

Credit Suisse First Boston

Banque Bruxelles Lambert S.A.

Continental Illinois

Rothschild Bank AG

AMAS S.A.

Banco di Roma

The Bank of Tokyo (Holland) N.V.

Banque Francaise du Commerce Extérieur

Banque Internationale à Luxembourg S.A.

Banque Privée de Gestion Financière B.P.G.F.

Banque Worms

Berger Bank

Chemical Bank International Group

Compagnie Monégasque de Banque

Credit Industriel d'Alsace et de Lorraine

Richard Daus & Co.

Financial Management Services

Girozentrale und Bank der österreichischen Sparkassen

Kansallis-Osake-Pankki

Manufacturers Hanover

Nippon European Bank S.A.

N.M. Rothschild & Sons

The Royal Bank of Scotland

Sumitomo Finance International

Union Bank of Finland Ltd.

S. G. Warburg & Co. Ltd.

Kidder, Peabody International

Banque Nationale de Paris

Deutsche Girozentrale

—Deutsche Kommunalbank—

Svenska Handelsbanken

Banca Commerciale Italiana

Bank of Helsinki

Bankers Trust International

Banque Generale du Luxembourg S.A.

Banque Louis-Dreyfus

Banque Rothschild

Bayerische Hypothek- und Wechsel-Bank

Berliner Handels- und Frankfurter Bank

BSI Underwriters

Christiania Bank og Kreditkasse

Copenhagen Handelsbank

Crédit Industriel et Commercial

DG Bank International

First Chicago

Fuji International Finance

Hessische Landesbank

IBJ International

Lloyds Bank International

Samuel Montagu & Co.

Pierson, Holding & Pierson N.V.

Sanwa Bank (Underwriters







## COMMODITIES AND AGRICULTURE

## Wool price peak in Australia

FIGURES JUST released by the National Council of Wool Selling Agents of Australia show that average auction prices there in the second half of the 1978-79 season were the highest since the 1950-51 wool boom, reports AP-Dow Jones.

On average, auction prices exceeded 200 cents per kilo, for greasy wool, for the first time since the Korean war.

Total receipts were also highest since 1950-51, at more than \$1.05bn for the full season. The total value of the 3.25m bales auctioned was up by 11.6 per cent from 1977-78.

But the bales total was the lowest in 10 years due to a decline in sheep numbers. The Australian Wool Corporation has forecast that total Australian wool exports, of which auctioned supplies are only a part, should be 2.8m bales for the season ended June 28.

In Sydney wool trade sources told Reuters they expected firm to dealer wool prices in the early part of the 1979-80 selling season, which begins with one-day auctions in Sydney and Fremantle today.

But the longer-term outlook is clouded by forecasts of a downturn in world economic growth they warn.

## Coffee and cocoa surge higher as pound weakens

BY RICHARD MOONEY

LONDON'S LEADING "soft" commodity markets, which have been severely depressed recently in the arm yesterday by the sudden weakness of sterling.

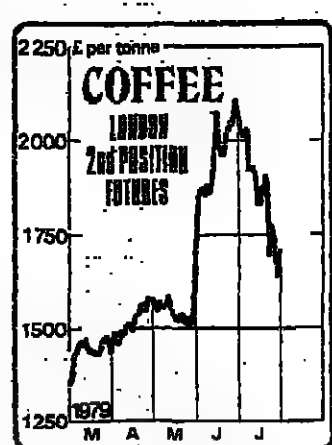
Coffee and cocoa futures prices rose sharply and significant gains were also made in world sugar and rubber.

September delivery coffee, having fallen 2240 a tonne since the beginning of last week, shot up to 21,725 a tonne at one stage before ending the day 73 higher at £1,704 a tonne.

But this rise was not entirely due to the fall in the value of the pound.

Reports that a ship was blocking the Panama Canal—the main trade route for coffee from Pacific coast producers such as Colombia, Peru, Ecuador and El Salvador—heightened market nervousness, dealers said.

Meanwhile, trade reports from Rio de Janeiro, that Brazil's September coffee flowering had been set back by the recent cold weather, may also have encouraged the rise, though some dealers said this had been expected.



The September position on the London futures market had risen the £40 permissible daily limit by mid-afternoon and closed £73 up on the day at £1,403 a tonne.

On the raw sugar market, the October position ended the day £140 higher at £102.575 a tonne. This rise was encouraged, traders said, by news from New York that the U.S. House of Representatives Rules Committee was considering clearing the way for action on pending sugar legislation.

Protracted delays to the passing of the Sugar Bill have prevented U.S. ratification of the International Sugar Agreement. Dealers said sugar prices were given an added lift by news that Venezuela withheld a buying tender today for up to 100,000 tonnes of white sugar for August-December shipment.

Natural rubber dealers said higher prices yesterday were directly due to currency factors. On the physical market, the RSS No. 1 spot quotation gained 1.25p to 58.25p a kilo and the October futures position rose 1.03p to 60.7p a kilo.

## UK zinc producer cuts price

By John Edwards, Commodities Editor

BRITISH ZINC producer, AM and S Europe, yesterday confirmed a cut in its official producer price, from \$445 to \$780 a tonne, in line with reductions already announced by several European smelters.

This compares with the July price of \$395, which would have been sharply cut in any event for August by the rise in the value of sterling during the past month.

AM and S Europe, as a wholly-owned subsidiary of Australian Mining and Smelting, part of the Rio Tinto Zinc Group, is the first integrated zinc producer to cut its price to \$780.

So far, the cut to \$780 has been made by smelters anxious to reduce the cost of their concentrates in view of the depressed price being received for zinc metal because of poor demand.

AM and S evidently consider it inevitable that all zinc producers will be forced to lower their prices, although Outokumpu of Finland yesterday told Reuters it was still watching the situation.

Zinc prices on the London Metal Exchange yesterday were marginally higher, reflecting the sudden fall in sterling, but the decline had a far greater impact in other metal markets. Cash tin jumped by \$310 to \$6,835 a tonne, with the upward trend being encouraged by further U.S. buying interest.

## U.S. silver purchase plan rejected

WASHINGTON—A House Appropriations subcommittee voted unanimously to recommend that the full committee reject a bill calling for acquisition of \$913m worth of silver.

The General Services Administration claimed the measure was inconsistent with stockpile goals.

Another House Panel, the Armed Services Committee's Stockpiles Subcommittee, has already approved a bill which authorises the sale of 15m ounces of stockpiled silver.

Reuters

## Conflicts of interests in palm oil industry

BY WONG SULONG IN KUALA LUMPUR

THE COLLAPSE of the marketing pact between Malaysia's palm oil growers and refiners, in the face of tight supply, has highlighted the need for a national strategy on the marketing of the country's second most important agricultural commodity.

Malaysian refiners are unhappy because they are not able to get enough crude palm oil, and accuse growers of exploiting the tight supply situation to charge them unreasonably high prices.

The palm oil industry has grown so fast that the authorities have had little time to map out their production and marketing strategies.

From almost nil production in 1960, Malaysia has rapidly overtaken Nigeria as the world's biggest producer, and now produces 1.8m tonnes, 45 per cent of world's output.

The conflict of interest between the growers and local refiners could be traced back to five years ago when numerous refineries were established all over Peninsular Malaysia.

Unlike the rubber factories, which were set up mainly by the plantations themselves, and therefore were assured of supply, the palm oil refiners were mainly independent operators, who built their plants to take advantage of the Government's export duty on crude palm oil and the plentiful supply of crude at that time.

As more refineries were built, competition for crude oil became intense. So much so that times of production shortfalls (during the periodic droughts, for example), there is a scramble for supplies.

During such times refiners accuse growers of exploitation. Last October, the Ministry of Primary Industries brought the Malaysian Oil Palm Growers Council (MOPGC) and the Palm Oil Refiners Association (PORAM) together and hammered out an agreement based on the CIF "countback" formula.

Under the pact, growers agreed to sell, and refiners to buy, crude oil at the prevailing Rotterdam price, minus the freight and insurance charges, because the oil is not delivered overseas.

But PORAM says the pact has collapsed in recent weeks and their members have had to pay the full Rotterdam price (plus the elements of freight and insurance) for their purchases.

This can add up to as much as 200 ringgits (£40) premium per tonne, and local refiners are dissatisfied in relation to their overseas competitors.

The MOPGC denies its members are squeezing the refiners. It says the high price is the result of a shortfall in output, and adds that there are growers and refiners who are not members of their respective organisations and who are free to sell and buy at prices dictated by the market.

There appears to be no immediate solution to the refiners' dilemma, as the Government cannot enforce the parties to adhere to the CIF formula.

Recently, the Government froze all applications for new palm oil refineries, after realising that too many approvals had been given.

PORAM fears the supply situation could worsen when new plants (many of which are to be built by the plantations themselves) come into operation.

Th problem facing the Government in assessing how far local refining capacity can expand before it jeopardises existing markets for Malaysian crude palm oil overseas.

Some Government planners are worried that if Malaysia were to refine all its palm oil, it might have problems finding markets. Many countries put high tariffs on refined palm oil.

While crude oil is given easy access. Refined Malaysian palm oil attracts a 14 per cent import duty in the EEC compared with 4 per cent for crude.

There are fears that unless Malaysia makes its crude palm oil freely available to its traditional consumers overseas, these clients will switch to other edible oils.

Malaysia needs these traditional buyers as its production is growing rapidly and is expected to exceed 4m tonnes by 1985.

The Government is directly interested in ensuring markets because of the large volume of palm oil produced from its land schemes. FELDA has more than 700,000 acres under palm oil, which has yet to reach maturity.

The dramatic switch of overseas markets is also causing some uneasiness for the planners. Until recently, the U.S. was the biggest market for Malaysian palm oil, but within a year, India, from virtually nowhere, has shown up to occupy first place. Palm oil consumed a great deal over soyabean oil, and U.S. buyers have switched to the latter. Malaysian palm exports to the U.S. are now a quarter of what they used to be.

India, flushed with remittances from citizens in the Middle East, is a heavy but unpredictable market.

Last year, the Indian authorities imposed a 17.5 per cent duty on edible oil imports to encourage local production, although this was later lifted.

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## Rubber demand rise forecast

By Our Commodities Staff

CONSUMPTION of rubber, natural and synthetic, is expected to rise by 57 per cent during the next 10 years, according to the International Institute of Synthetic Rubber Producers. This would raise consumption to 13.8m tonnes a year.

Synthetic's share of the total is forecast to rise from 69.5 per cent this year to 74 per cent in 1988. Rubber taken by synthetic is centrally planned economies is forecast at 34 per cent in 1988 compared with 77 per cent in 1978.

The biggest consumption increase is expected in Latin America which is likely to take 8 per cent of the world total in 1988 compared with 5 per cent at present. North American consumption is likely to register a modest increase in the period but its share of world usage is expected to drop 6 per cent to 24 per cent by 1988, adds Europe's share will drop from 20 per cent to 17 per cent over the same period.

## U.S. wheat export curbs opposed

WASHINGTON—Mr. Thomas Foley, chairman of the U.S. House of Representatives agriculture committee, has asked members to join him in opposing amendments aimed at curbing wheat and rice exports which are expected to be brought up later this week.

Mr. Foley, a Washington State Democrat, said in a letter to his colleagues: "I will actively oppose the amendments and urge all members of the committee to participate in the debate."

One of the amendments, proposed by New York Democrat, Mr. Lester Wolff, would effectively curb U.S. wheat sales to OPEC nations. It calls for export controls on all sales of wheat and wheat flour.

Another, tabled by Mr. James Shannon, would reduce hides exports by at least 15 per cent from their 1978 level.

A senior U.S. Agriculture Department official said, meanwhile, that the main details of the 1980 wheat programme should be announced today. He also hoped a statement would be possible on the department's policy regarding increased

farmer-owned reserve for 1980 crop wheat.

The officials declined comment on rumours that the USSR would be allowed to buy up to 8m tonnes of wheat in the fourth year of the pact, and that a decision would be made on raising the limit for maize later this year.

Reuters

## Indonesia to buy rice from Philippines

JAKARTA—Indonesia has signed a contract to purchase 100,000 tonnes of rice from the Philippines, a spokesman for the Logistics Board said here yesterday.

He did not disclose the purchase price, but informed sources said Indonesia would pay \$295 a tonne for the shipment, well below the \$400 Government pays for rice on concession from the U.S.

No date has been set for the shipments.

Reuters

## BRITISH COMMODITY MARKETS

## BASE METALS

COPPER—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

WIREBAR—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

ALUMINIUM—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

LEAD—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

ZINC—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

NICKEL—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

COBALT—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

IRIDIUM—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

ROSEMARY—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

THYME—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

ORIGANUM—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

SAGE—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

BALESTINE—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

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WINTERGREEN—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

YEW—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

Official: 265.00, Unofficial: 265.00

REDWOOD—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

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DOUGLASS SPRUCE—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

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SPRUCE—Higher on balance on the London Metal Exchange following the sharp decline in sterling. After opening at 260 and ending at 260, the price rose to 265 by 11.30 a.m. and then to 270 by 1.30 p.m. The price then fell to 265 by 3.30 p.m. and ended at 265.

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DOUGLASS SPRUCE—Higher on balance







# INSURANCE AND

<b>Abbey Life Assurance Co. Ltd.</b>			<b>Crown Life Assurance Co. Ltd.</b>		
35 St. Paul's Churchyard, E.C.4			10-248 9111		
Equity Acc.	100.0	100.0	Equity Acc.	100.0	100.0
Property	100.0	100.0	Property	100.0	100.0
Life Insurance	100.0	100.0	Life Insurance	100.0	100.0
Investment	100.0	100.0	Investment	100.0	100.0
Reserve Fund	100.0	100.0	Reserve Fund	100.0	100.0
Profit Share	100.0	100.0	Profit Share	100.0	100.0
Dividend	100.0	100.0	Dividend	100.0	100.0
Capital	100.0	100.0	Capital	100.0	100.0
Assets	100.0	100.0	Assets	100.0	100.0
Liabilities	100.0	100.0	Liabilities	100.0	100.0
Surplus	100.0	100.0	Surplus	100.0	100.0
Profit	100.0	100.0	Profit	100.0	100.0
Losses	100.0	100.0	Losses	100.0	100.0
Expenses	100.0	100.0	Expenses	100.0	100.0
Income	100.0	100.0	Income	100.0	100.0
Net Income	100.0	100.0	Net Income	100.0	100.0
Retained Income	100.0	100.0	Retained Income	100.0	100.0
Dividend Payout	100.0	100.0	Dividend Payout	100.0	100.0
Capital Growth	100.0	100.0	Capital Growth	100.0	100.0
Assets Growth	100.0	100.0	Assets Growth	100.0	100.0
Liabilities Growth	100.0	100.0	Liabilities Growth	100.0	100.0
Surplus Growth	100.0	100.0	Surplus Growth	100.0	100.0
Profit Growth	100.0	100.0	Profit Growth	100.0	100.0
Losses Growth	100.0	100.0	Losses Growth	100.0	100.0
Expenses Growth	100.0	100.0	Expenses Growth	100.0	100.0
Income Growth	100.0	100.0	Income Growth	100.0	100.0
Net Income Growth	100.0	100.0	Net Income Growth	100.0	100.0
Retained Income Growth	100.0	100.0	Retained Income Growth	100.0	100.0
Dividend Payout Growth	100.0	100.0	Dividend Payout Growth	100.0	100.0
Capital Growth Rate	100.0	100.0	Capital Growth Rate	100.0	100.0
Assets Growth Rate	100.0	100.0	Assets Growth Rate	100.0	100.0
Liabilities Growth Rate	100.0	100.0	Liabilities Growth Rate	100.0	100.0
Surplus Growth Rate	100.0	100.0	Surplus Growth Rate	100.0	100.0
Profit Growth Rate	100.0	100.0	Profit Growth Rate	100.0	100.0
Losses Growth Rate	100.0	100.0	Losses Growth Rate	100.0	100.0
Expenses Growth Rate	100.0	100.0	Expenses Growth Rate	100.0	100.0
Income Growth Rate	100.0	100.0	Income Growth Rate	100.0	100.0
Net Income Growth Rate	100.0	100.0	Net Income Growth Rate	100.0	100.0
Retained Income Growth Rate	100.0	100.0	Retained Income Growth Rate	100.0	100.0
Dividend Payout Growth Rate	100.0	100.0	Dividend Payout Growth Rate	100.0	100.0
Capital Growth Rate (%)	100.0	100.0	Capital Growth Rate (%)	100.0	100.0
Assets Growth Rate (%)	100.0	100.0	Assets Growth Rate (%)	100.0	100.0
Liabilities Growth Rate (%)	100.0	100.0	Liabilities Growth Rate (%)	100.0	100.0
Surplus Growth Rate (%)	100.0	100.0	Surplus Growth Rate (%)	100.0	100.0
Profit Growth Rate (%)	100.0	100.0	Profit Growth Rate (%)	100.0	100.0
Losses Growth Rate (%)	100.0	100.0	Losses Growth Rate (%)	100.0	100.0
Expenses Growth Rate (%)	100.0	100.0	Expenses Growth Rate (%)	100.0	100.0
Income Growth Rate (%)	100.0	100.0	Income Growth Rate (%)	100.0	100.0
Net Income Growth Rate (%)	100.0	100.0	Net Income Growth Rate (%)	100.0	100.0
Retained Income Growth Rate (%)	100.0	100.0	Retained Income Growth Rate (%)	100.0	100.0
Dividend Payout Growth Rate (%)	100.0	100.0	Dividend Payout Growth Rate (%)	100.0	100.0
Capital Growth Rate (%) (5Y)	100.0	100.0	Capital Growth Rate (%) (5Y)	100.0	100.0
Assets Growth Rate (%) (5Y)	100.0	100.0	Assets Growth Rate (%) (5Y)	100.0	100.0
Liabilities Growth Rate (%) (5Y)	100.0	100.0	Liabilities Growth Rate (%) (5Y)	100.0	100.0
Surplus Growth Rate (%) (5Y)	100.0	100.0	Surplus Growth Rate (%) (5Y)	100.0	100.0
Profit Growth Rate (%) (5Y)	100.0	100.0	Profit Growth Rate (%) (5Y)	100.0	100.0
Losses Growth Rate (%) (5Y)	100.0	100.0	Losses Growth Rate (%) (5Y)	100.0	100.0
Expenses Growth Rate (%) (5Y)	100.0	100.0	Expenses Growth Rate (%) (5Y)	100.0	100.0
Income Growth Rate (%) (5Y)	100.0	100.0	Income Growth Rate (%) (5Y)	100.0	100.0
Net Income Growth Rate (%) (5Y)	100.0	100.0	Net Income Growth Rate (%) (5Y)	100.0	100.0
Retained Income Growth Rate (%) (5Y)	100.0	100.0	Retained Income Growth Rate (%) (5Y)	100.0	100.0
Dividend Payout Growth Rate (%) (5Y)	100.0	100.0	Dividend Payout Growth Rate (%) (5Y)	100.0	100.0
Capital Growth Rate (%) (10Y)	100.0	100.0	Capital Growth Rate (%) (10Y)	100.0	100.0
Assets Growth Rate (%) (10Y)	100.0	100.0	Assets Growth Rate (%) (10Y)	100.0	100.0

[illegible][illegible]

**NOTES:** are indicated, and are in place unless otherwise indicated.











## £600m local government cuts

BY PAUL TAYLOR AND LISA WOOD

LOCAL AUTHORITIES were told yesterday to cut planned current expenditure in 1980-81 by more than £600m—making savings of 5 per cent.

After allowing for a planned marginal increase in local authority expenditure next year, the cuts represent a further 1 per cent reduction in current expenditure over the 3 per cent saving the Government has asked authorities to make this current financial year.

The Government's plans were split out by Mr. Michael Heseltine, Environment Secretary, at a meeting with the local authority associations yesterday and will inevitably lead to further reductions in the level of services.

Mr. Heseltine told the local authorities that they should plan on the basis of a reduction of 5 per cent on the projected level of £12,136m set out in the latest expenditure White Paper.

The full impact of the cuts on council rates next year remains unclear, partly because Government restrictions on the level and charges for services are to be eased and also because the Government has yet to decide how much of the local authority expenditure will be financed through the rate support grant.

Yesterday's briefing with the local authority associations dealt with spending across the board.

There will be further discussions on how the cuts will affect specific services like education which accounts for 50 per cent of local authority spending.

In making the 5 per cent cut Government has selected a mid-way option after asking the local authorities to examine the implications of a range of possible cuts between 2.5 per cent and 7.5 per cent.

In the current year, the Government has already announced a £300m reduction in the final rate support grant settlement and has asked local authorities to make saving of 3 per cent on the level of expenditure covered by the rate support grant itself.

Mr. Heseltine said he will announce proposals in the autumn to give local authorities greater flexibility over statutory obligations to provide school milk and meals and to remove the restrictions on charges for other services including school transport.

In total these changes could result in savings of more than £200m in 1980/81, he said. He is also to introduce legislation allowing local authorities to charge for planning applications—perhaps up to £100 for each application.

The relaxations on the level of services and the charges for services will make it easier for the local authorities to meet the spending targets. Nevertheless the announcement of the cuts brought a mixed response from the local authorities.

Mr. John Grugson, chairman of the Association of County Councils' policy committee, said it was now up to individual local authorities to decide how the cuts will be made.

He warned: "It is inevitable that there will be redundancies. There will have to be a great tightening of belts and reduction in standards."

Mr. Ian McCallum, chairman of the Association of District Councils, rejected Mr. Heseltine's suggestion that the quality of services is not dependent on the level of expenditure. He said the cuts would mean "changed service".

Mr. A. G. "Tag" Taylor, chairman of the Association of Metropolitan Authorities, complained that the Government had still not said whether the rate support grant would be increased this year to cover pay awards expected to be announced by the Clegg Commission today.

Some of the froth boiled away from sterling yesterday, as it tumbled by around 61 cents against the dollar and lost as much as 2.3 per cent in terms of the trade-weighted index. Sterling still managed to end well up over the month of July as a whole, but on the last day it lost half of the month's gain against the dollar. News of this sudden setback will have come as sweet music to the ears of Britain's hard-pressed exporters and the equity market has now become sufficiently attuned to the significance of the foreign exchange to stage a modest rally yesterday—with ICI being marked up 5p to 321p. Yesterday's CBI industrial trends survey showed the sharpest deterioration in export confidence between one survey and the next since the question was first asked in 1961.

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Under the 1977 Health Service Act the Minister has the power to dismiss the members of an area health authority and replace them with a special commissioner in certain circumstances.

The stand taken by the health authority won support from doctors and the British Medical Association's Lambeth and Southwark Division who argued that the cuts were unacceptable because of the reduction in services which would follow.

The combination of an unnecessary £13m rights issue earlier this year plus a set of uninspiring 1978 profit figures has dogged the Taylor Woodrow share price in recent months. A year ago it seemed as if 1979 would be the boom year for the group. As the profits from the big Middle Eastern projects flowed in, analysts were penciling in pre-tax profit forecasts of £30m for this year. Now it looks as if TW will be lucky to push its profits much above last year's £24m.

At the half way stage the group's pre-tax profits are £0.4m lower at £7.1m. Admittedly, all of this can be explained away by adverse exchange rate movements and the group emphasises that its performance has been marred by the industrial unrest

## THE LEX COLUMN

### Sterling hits an air pocket

Index rose 3.2 to 4542

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## Chrysler Corp.

Chrysler Corp.

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## BP move increases gloom on eve of Conference

BY MARTIN DICKSON AND MICHAEL HOLMAN IN LUSAKA

NIGERIA'S decision to nationalise BP's assets intensified the gloom surrounding the Commonwealth Conference in Lusaka and seemed to diminish the chances of a compromise agreement on Rhodesia.

The move was regarded in Lusaka as deliberately timed to coincide with the formal opening of the conference today and thus serve fresh notice on Britain that Nigeria is angry with its Rhodesia policy and its Southern Africa policy in general.

There was concern that the Lagos government's announcement came shortly after a visit to Nigeria by Mr. Malcolm Fraser, the Australian Prime Minister, who has been trying to find a compromise formula to defuse the Rhodesia issue. The indications last night were that he had produced no softening in the Nigerian stance. The Nigerian announcement came as Mrs. Margaret Thatcher,

began a delicate series of informal consultations with key African leaders in preparation for Friday's conference debate on Rhodesia.

Accompanied by Lord Carrington, the Foreign Secretary, she was scheduled to have a private dinner with President Kenneth Kaunda of Zambia. The meeting came only two days after a fierce attack by the President on British policy on Rhodesia and Mrs. Thatcher personally.

Strategy

Earlier yesterday, Mrs. Thatcher and Lord Carrington held talks with President Nyerere of Tanzania, and hope to meet other African leaders, including the Nigerian Foreign Minister, before Friday.

President Nyerere is chairman of the five front-line African states ranged against Rhodesia, whose leaders held

an unexpected meeting late on Monday night to co-ordinate strategy for the conference.

Under the provisional agenda for the conference, Southern African issues are not expected to be discussed in detail until Friday. This will be followed by a weekend of informal talks which Commonwealth officials hope might help produce a measure of understanding on Rhodesia.

After today's opening ceremony, the conference will go into a general discussion of the world political situation. It will then move on to the problems of South-East Asia, including the plight of the Vietnamese boat people.

Other issues to be discussed by the 27 Heads of Government and Ministers from 12 other countries include the world economy, Commonwealth industrial co-operation and the development problems of the smallest members.

## Rhodesia approach 'could jeopardise Nigeria investments'

BY DAVID TONGE, DIPLOMATIC CORRESPONDENT

THE BRITISH Government has been warned by businessmen that its approach to Rhodesia could put all British investments in Nigeria "very much in jeopardy".

The warning reflects the growing concern among companies with large stakes in black Africa. On several occasions this concern has been expressed to ministers and senior officials.

British investments in West Africa alone are estimated at around £800m while Britain's trade with black Africa last year totalled £3.3bn, over twice the total with South Africa.

On July 4 a group of industrialists, bankers, contractors and traders involved in black Africa, and in particular in Nigeria and Ghana, met Mr. Richard Luce, the Parliamentary Under-Secretary of State at the Foreign Office.

The group, which included representatives of BP, Shell, Dunlop and Barclay's International, told Mr. Luce that premature recognition of Zimbabwe-Rhodesia could lead to strong reactions from Nigeria.

Its members also expressed their apprehension over Mrs. Margaret Thatcher's statement in Canberra that she did not expect the British Parliament to renew sanctions in November.

The group have since been lobbying Tory MPs while the Association of British Chambers of Commerce has also been in contact with the authorities.

The ABCC has companies involved in black Africa and Southern Africa among its members. It has stressed the need for protecting UK investments in South Africa which, including portfolio investment, are of the order of £4bn.

## Weather

UK TODAY

SHOWERS. Heavy rain at times. S.W. England, S.E. Cent. S. England, Midlands, Rain, heavy at times. Max. 18C (64F).

N.W. E. Cent. N. England Cloudy, outbreaks of rain in afternoon. Max. 18C (64F).

S.W. England, Wales Hill fog, rain, heavy in places.

Mayar Firth, N.E. N.W. Scotland, Orkney and Shetland Cloudy, rain at times, hill fog.

Rest of Scotland, Borders, N.E. England, Lake District, Isle of Man, N. Ireland Showers, sunny intervals. Max. 17C (63F).

Outlook: Changeable. Long range forecast for August Warm, dry periods with cool and sometimes wet interludes. Generally above average temperatures.

WORLDWIDE		Y day		T day	
Algeria	19	21	Locusts	19	21
Amman	19	21	Locusts	19	21
Athens	19	21	Locusts	19	21
Bahra	19	21	Locusts	19	21
Batavia	19	21	Locusts	19	21
Bombay	19	21	Locusts	19	21
Buenos	19	21	Locusts	19	21
Calcutta	19	21	Locusts	19	21
Cairo	19	21	Locusts	19	21
Canton	19	21	Locusts	19	21
Cebu	19	21	Locusts	19	21
Colon	19	21	Locusts	19	21
Hankow	19	21	Locusts	19	21
Hong Kong	19	21	Locusts	19	21
Kobe	19	21	Locusts	19	21
London	19	21	Locusts	19	21
Lyons	19	21	Locusts	19	21
Manila	19	21	Locusts	19	21
Medan	19	21	Locusts	19	21
Meppen	19	21	Locusts	19	21
Moscow	19	21	Locusts	19	21
Mumbai	19	21	Locusts	19	21
Nairobi	19	21	Locusts	19	21
Paris	19	21	Locusts	19	21
Perth	19	21	Locusts	19	21
Rangoon	19	21	Locusts	19	21
Reykjavik	19	21	Locusts	19	21
Rome	19	21	Locusts	19	21
Singapore	19	21	Locusts	19	21
Sourabaya	19	21	Locusts	19	21
Taipei	19	21	Locusts	19	21
Tokyo	19	21	Locusts	19	21
Yokohama	19	21	Locusts	19	21

## Belfast shipyard cuts 630 jobs

BY OUR BELFAST CORRESPONDENT

HARLAND AND WOLFF, the Belfast shipbuilders, said last night that formal proposals for 630 redundancies from the workforce in mid-autumn had been put to ship stewards.

The proposal had been discussed by the stewards with district officials of the Confederation of Shipbuilding and Engineering Unions and the union has now called for a meeting with yard management.

The company has not so far put a figure on the likely level of future redundancies beyond the 630 this autumn, but the Confederation claimed that the 8,000 labour force would be cut by 1,800 by next March.

The Government has told the company, which is wholly owned by the Northern Ireland Department of Commerce, that public funds in cover losses in the present financial year will be limited to £22m.

Mr. Giles Shaw, the Ulster Under-Secretary, warned management and workers a week ago that if they could not work within this limit, then the ship-

yard could not continue to operate.

The present order book will be completed by late 1981 and even if new orders were won in the near future, it is clear the labour force could not remain at its present level.

Harland and Wolff's trading loss in 1978 was £21.4m against a provision of £8.6m which was deemed adequate less than a year previously. Sir Brian Morion, the chairman, said in the annual report that losses associated with completing the current order book during 1979 and 1980 could be £9.3m greater than previously assumed.

Efficiency

The unions, which are seeking meetings with the management and Government, want the redundancies postponed for six months to enable the labour force to show that it can improve performance.

Mr. Jimmy Graham, the Confederation secretary, said: "While productivity and efficiency can and must be im-

proved, we refuse to accept that all the ills of the shipyards can be laid at the feet of the labour force."

The Northern Ireland committee of the Irish Congress of Trade Unions will raise the shipyard issue today at talks with Mr. Humphrey Atkins, the Ulster Secretary, about the effect of Government spending cuts.

The Confederation is to meet British Shipbuilders on Monday to discuss the corporation's plans for yard closures. These are expected to involve over 8,000 redundancies out of the merchant shipbuilding workforce of 28,000.

Mr. Michael Casey, the corporation's chief executive decided to go ahead with drawing up a detailed plan for closures after the Government announced in July that aid of £190m over two years has been guaranteed to the corporation. Further aid would depend on performance, but the Government did not intend to underwrite a fixed capacity for the shipyards.

## Aberdeen dockers snub TGWU

BY NICK GARNETT, LABOUR STAFF

DOCKERS AT Aberdeen refused a request from their union yesterday to stop handling food containers bound for North Sea oil rigs and platforms.

Dockers and cargo handlers at most other Scottish ports and inland distribution centres agreed to the request—from the Transport and General Workers' Union—in support of a strike over pay by offshore catering workers. But the Aberdeen dockers' decision was more significant because the port is the main centre for shipping food and materials to offshore installations.

The four main catering companies, which are in dispute with their workforce, said 18 of the 27 offshore installations they served were affected by the dispute.

The construction section of the Amalgamated Union of Engineering Workers yesterday reaffirmed instruction to its members not to cross picket lines mounted by the TGWU and the National Union of Seamen, which also represents catering staff.

This would normally affect up to 1,500 workers due to go out to installations in the next week. But the oil companies have flown off more than 1,500 non-essential personnel as a result of the strike.

The action is affecting forward construction work. The Inter-Union Offshore Committee is expected to hold an emergency meeting today to discuss the strike, which could involve up to 1,000 catering workers. The British Airline

Pilots' Association is expected to be asked not to fly relief catering crews from Aberdeen and Sunburgh in the Shetlands to offshore installations.

The seamen's union said yesterday that it was strengthening its picketing to try to prevent the organisation of relief crews.

The four catering companies appear determined not to improve their proposal of a £440 minimum rate—for four weeks, two on, two off. The unions' claim is £600.

The companies said they were still providing a service to most installations by using management and non-striking workers. The seamen's union believes that unless the companies alter their position, the dispute may be prolonged.

Continued from Page 1

## BP

other foreign companies in Nigeria, the Government said "other companies operating in Nigeria had nothing to fear as long as they continue to respect the policies of the Nigerian Government and the feelings of Nigerians, especially in the sensitive area of apartheid and obnoxious racialist policies in Southern Africa."

Ray Daffer, Energy Editor, writes: In recent years Nigeria has been one of the major sources of BP's crude oil supplies, along with Iran and Kuwait. Last year, for instance, BP lifted 360,000 barrels a day of Nigerian crude, some 9.4 per cent of its total supplies.

The company has also been badly hit by the production cuts in Iran, and could find it more difficult to obtain Kuwaiti oil as reports in Kuwait suggest that the country is planning to reduce its production by a quarter, from about 2m b/d to 1.5m b/d, possibly in April 1980.

BP said in London last night that it had been informed that compensation would be paid by the Nigerian Government. The company would not disclose the value of the assets concerned.

Continued from Page 1

## CBI

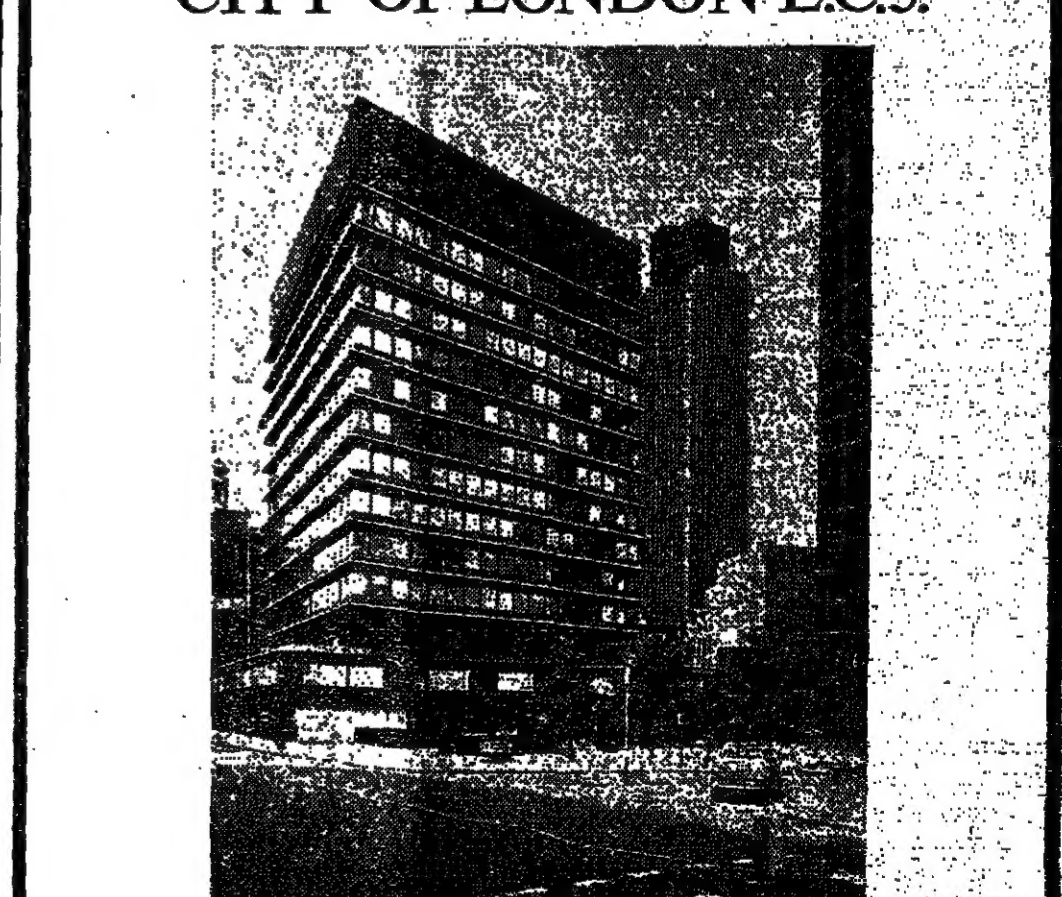
21 years old this month. Answers provided by companies on the outlook for future exports and on price constraints on their competitiveness abroad are the worst produced since questions were first asked on these points early in the survey's life—it is 21 years of this month.

In the CBI's economic situation report, also published yesterday, its regional offices stress the problems of a decline in activity and also express fears about the prospects for liquidity in the coming months.

The economic report also includes a pessimistic view on the UK current account deficit and expects only a slight improvement to an average annual rate of about £2bn over the next 18 months.

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